THE Inland Printer

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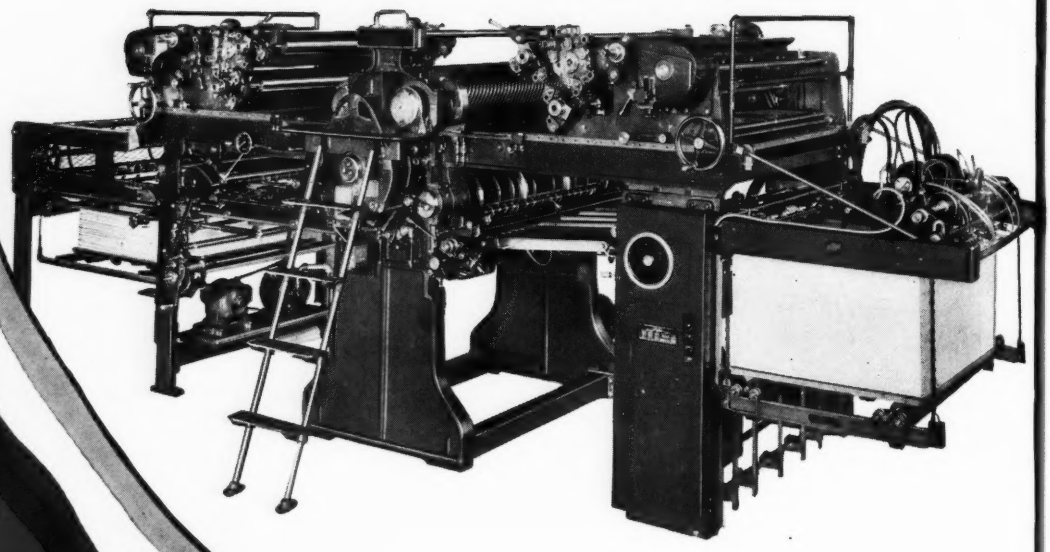
CHURCH



QUALITY PRODUCTION AT HIGH SPEEDS

Your customer says: "I want a flawless job . . . *and please rush!*"

You can meet such demands without worry . . . without overtaxing your plant's facilities, if your equipment includes a Cottrell two-color Rotary Press.

You'll never face the discouragement of having to pass up profits for lack of proper equipment. The Cottrell two-color Rotary is a versatile, high net production press which gives your plant a competitive edge for years to come!

Now is the time to think about the *best* investment in fine, profitable color printing . . . The Cottrell two-color Rotary Press.

Cottrell

C. B. COTTRELL & SONS CO.

Westerly, R. I.

New York: 25 E. 26th St. • Claybourn Division: 3713 N. Humboldt Ave., Milwaukee, Wis.

Chicago: Daily News Bldg., 400 W. Madison St.

Smyth-Horne, Ltd., 13 Bedford Row, London W.C. 1, Eng.

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The Elrod

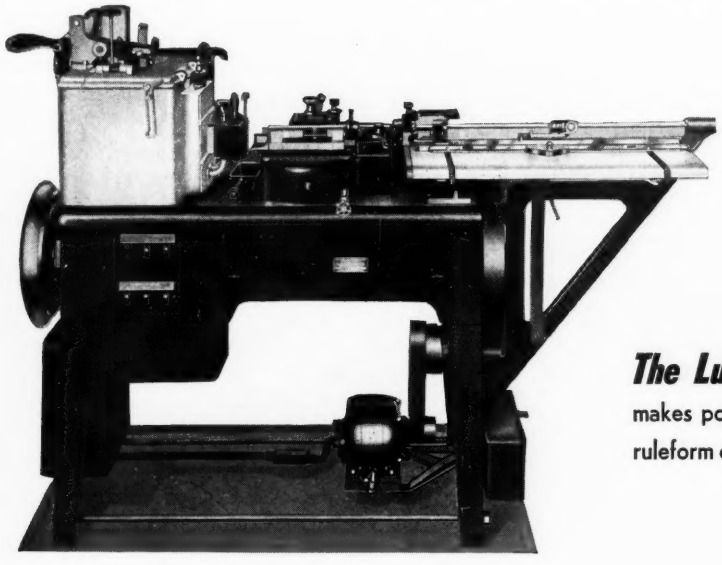
An Important Factor in Printing Production

Efficient composing room production requires an abundance of strip material for makeup and lockup. It is important that the compositor have right at hand plenty of leads and slugs, rule border and base material when he needs them, for his output suffers if he has to piece material, distribute or employ other wasteful practices to keep going.

The plant which installs an Elrod eliminates such difficulties, and is sure of a continuous supply of high-quality strip material in a size range from 1-point to 36-points in thickness, sufficient for all composing room needs.

Simple in design and mechanism, the Elrod turns out a product which meets severe modern printing requirements. This material comes from the mold as a continuous strip of metal, cooled and solidified under pressure.

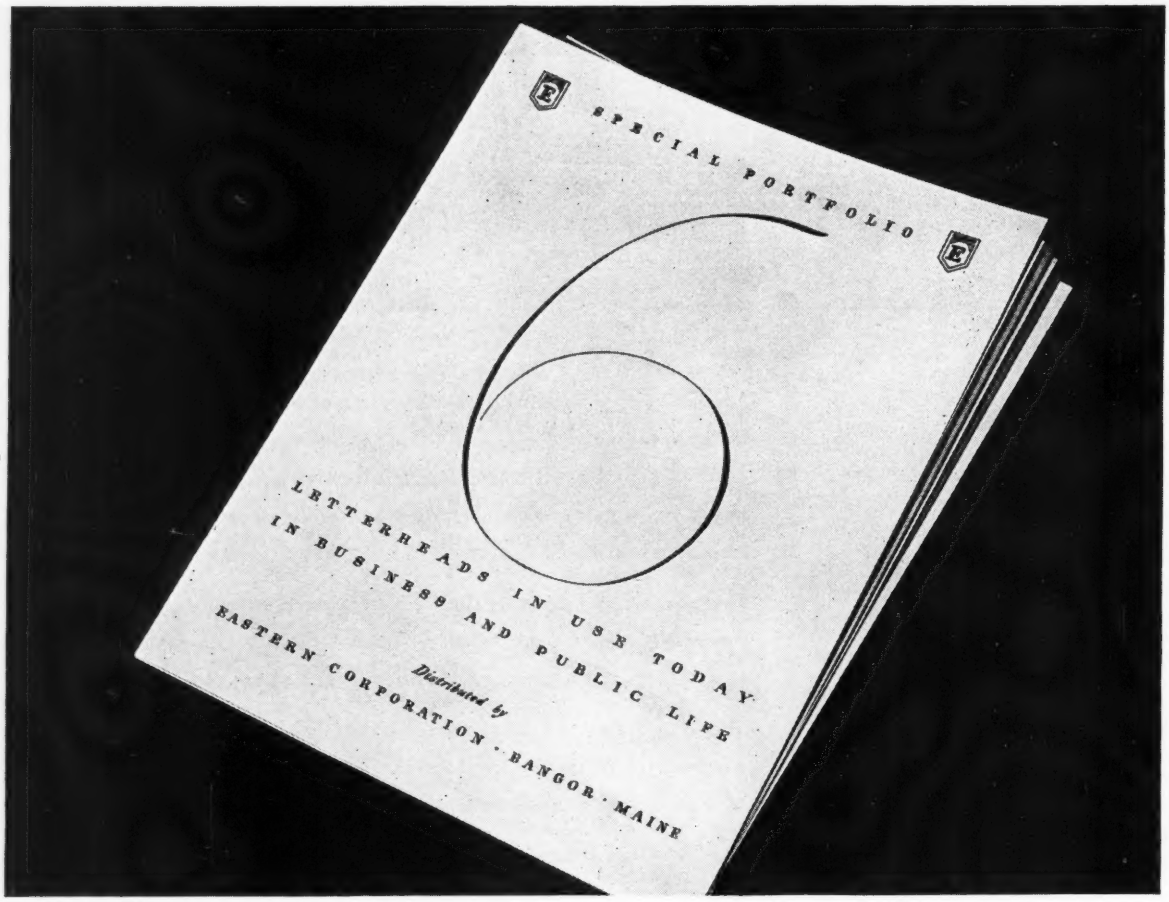
The Elrod has proved itself essential through many years of dependable and efficient service, to complete user satisfaction. Ask us for more details.



The Ludlow All-Slug System
makes possible better production of job, display and ruleform composition with distinctive Ludlow typefaces

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14, Ill.

Published monthly by Maclean-Hunter Publishing Corporation, 309 West Jackson Boulevard, Chicago 6, Illinois. Subscription, $4.00 a year in advance; single copies, 40 cents. (Send Canadian funds—$4.50 a year; single copy, 45 cents—to The Inland Printer, Terminal A. P. O. Box 100, Toronto.) Foreign $10.00 a year; three years, $20.00. Entered as second-class matter, June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3, 1879. Additional second-class entry at Lafayette, Indiana, under date of April 30, 1948. Copyrighted, 1949, Maclean-Hunter Publishing Corporation.



WELL-KNOWN NAMES OF TODAY

Are Featured in Eastern's Special Letterhead Portfolio

This month familiar names of contemporary America are being featured in a special letterhead portfolio to be distributed by Eastern Corporation to printers and buyers of printing. The letterheads are typical of many similar ones being used everyday by leaders in American business and public life.

Varying in subject and design, and printed by different processes in various shops, they sample the ease with which Eastern's Fine Business Papers give clean, sharp impressions regardless of process. The impressive feel and uniform texture of Eastern's papers insure exceptional printing in letterheads for notable or modest use.

If you, as one who specifies paper or printing, would like this newest portfolio—a request on your business letterhead will receive prompt attention from one of Eastern's established Paper Merchants.

EASTERN CORPORATION

BANGOR, MAINE

Makers of Atlantic Bond and other Fine Business Papers

HEART TO HEART

MY DEAR FRIENDS:

The Printing Industries of Philadelphia, Inc., Bulletin Number 47, May 25th, 1949, says that "no general wage cuts will take place, and industry, in order to maintain volume on a declining market, will have to achieve some price reductions out of management—effected savings and increased productivity."

Really, that spells the many-purpose, many Profit BAUMFOLDER—

True?

We did not, after V-E Day, embrace the opportunity of taking a big profit when there was such a demand for folders, but kept our prices practically pre-war (some models slightly less . . . some models slightly more). Other printing machines that may have been re-priced close to double pre-war can more readily absorb a modest cut today, but we are the unfortunate "unsung hero" who has already given thousands of firms the benefit of rock-bottom prices.

One week last month, fifty-five firms from the Atlantic to the Pacific ordered their Miracle Money-Maker BAUMFOLDER—the indispensable solver of today's price competition. Everywhere printers and bookbinders find it "indispensable." It invariably returns its cost many times over . . . long before you pay for it (on payment-out-of-earnings plan where you make but a small initial deposit) if used but a few hours a week. Honestly now, under these conditions, doesn't it cost you less than nothing to own it? And aren't you losing a small fortune by trying to compete without it?

Why are BAUMFOLDERS THE FASTEST-SELLING FOLDERS IN AMERICA? Among the many reasons it is first in sales is because it is first in value (priced close to pre-war—so much less than the usual price of fine folders). And because it's first in accuracy (perfection, no less). And first in versatility (no stock too thin nor too heavy . . . and it folds, pastes, trims and folds again for mailing in one operation; it will perforate both directions at the same time and deliver sheets flat). And first in production (the fastest folders ever built—feeds and folds faster than paper can stand—broken through the ceiling—the ultimate in production; therefore, the ultimate profit, making folding your most-profitable operation). And first in sturdiness (precision-built of finest materials obtainable—the heaviest-built, the strongest-built folders ever designed—truly life-time folders). And first in quick setting and ease of operation (timeless—almost self-operating . . . thousands, since V-E Day, have been uncrated and set up by users who had no previous operating experience).

Why do without it and lose—why not phone us collect or wire us to ship it and make it your "Gold-Mine for Forty-Nine?"

Russell Ernest Baum
615 Chestnut Street
Philadelphia 6, Pa.

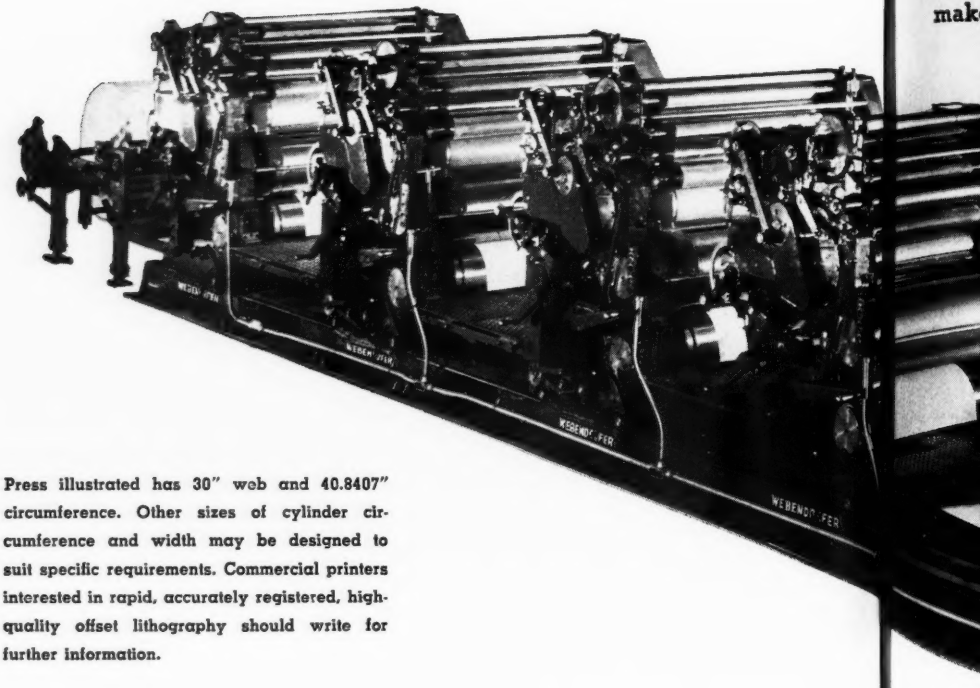
SIZES: 14 x 20 17½ x 22½ 22 x 28 25 x 38 28 x 44

P.S. June orders breaking all sales records. Factory working overtime . . . fifty-seven hours weekly. Every hour a "Baum" rolls off the assembly line. Don't delay . . . and be disappointed in delivery. Do phone me personally collect—let's talk it over.

ATF-Webendorfer

MULTICOLOR WEB-FED

Offset Lithographic Press



Press illustrated has 30" web and 40.8407" circumference. Other sizes of cylinder circumference and width may be designed to suit specific requirements. Commercial printers interested in rapid, accurately registered, high-quality offset lithography should write for further information.

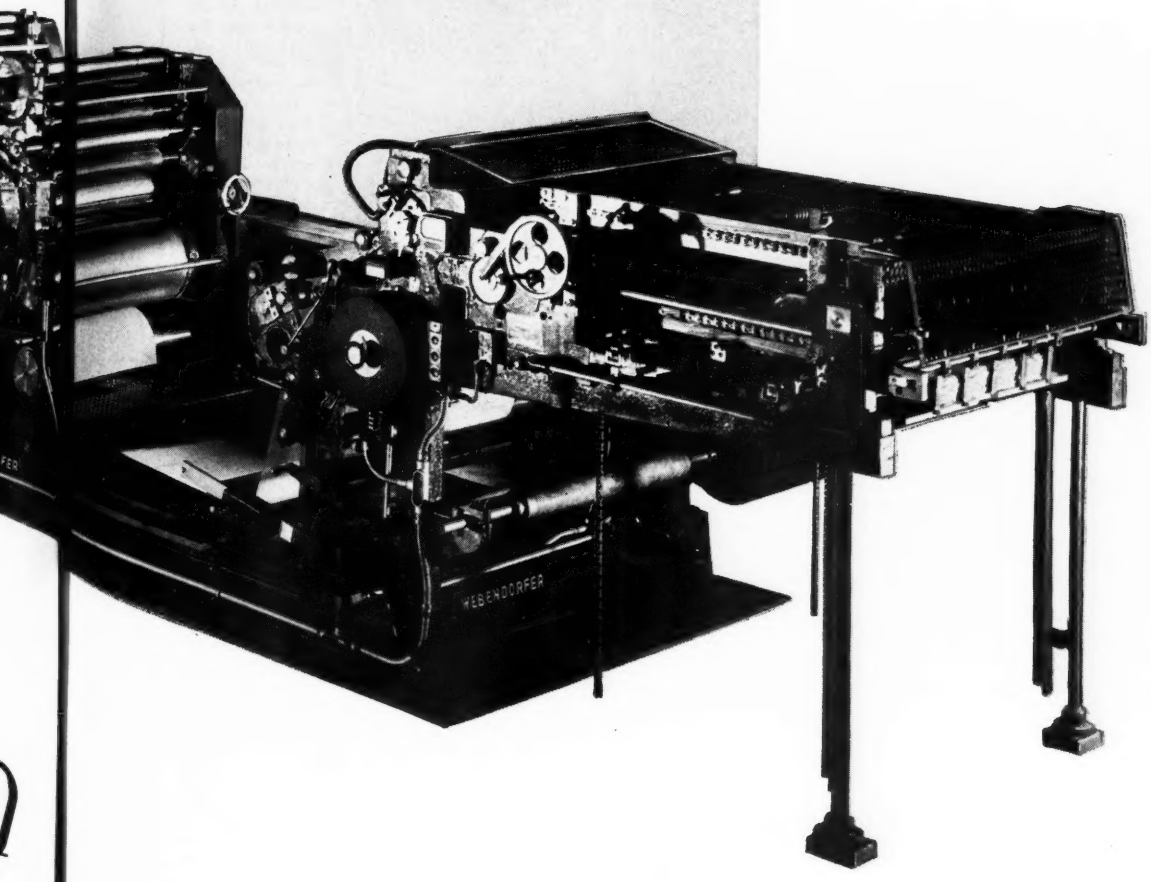
American Type Founders

An ATF Associate

WEBENDORFER DIVISION

2 South Street, Mt. Vernon, N. Y.

HERE is a way for printers with long runs in colors to increase their earnings at lower production costs. This ATF-Webendorfer press can handle many kinds of printed advertising, magazine covers and inserts, book jackets, box and gift wraps, labels and many other types of commercial work within the available web and cylinder dimensions. The press illustrated prints four colors one side or two colors each side at 8,000 to 12,000 cylinder revolutions per hour, delivering flat sheets face up or re-winding. Trimmers on both sides of the web are adjustable, and plate cylinders are adjustable both sidewise and webwise for register at operating speeds, thus minimizing makeready time. Press has automatic lubrication.

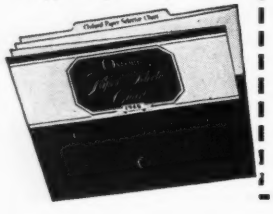


An extra reason why your Oxford Paper Merchant is

A Good Man to Know

This Oxford Paper Selector Chart is so informative, so practical, you'll find it an important time and trouble-saver in selecting the right paper for your job. Your Oxford Paper Merchant has one for you now—you'll find it just one of many reasons why he's a good man to know!

If there's no Oxford Paper Merchant near you, mail coupon for your **FREE** copy today.



Oxford Paper Company, Dept. 31
230 Park Avenue, New York 17, N. Y.

Please send me a copy of your new Oxford Paper Selector Chart.

NAME.....

COMPANY.....

ADDRESS.....

CITY & ZONE.....STATE.....

OXFORD PAPERS
Help Build Sales

FIFTIETH ANNIVERSARY 1899 1949

Albany, N. Y.	W. H. Smith Paper Corp.
Augusta, Maine	Carter, Rice & Co. Corp.
Baltimore, Md.	The Mudge Paper Co.
Bethlehem, Pa.	Wilcox-Walter-Furlong Paper Co.
Boise, Idaho	Blake, Moffitt & Towne
Boston, Mass.	Carter, Rice & Co. Corp.
Buffalo, N. Y.	Franklin-Cowan Paper Co.
Charlotte, N. C.	Caskie Paper Co., Inc.
Chattanooga, Tenn.	Bond-Sanders Paper Co.
Chicago, Ill.	Bermingham & Prosser Co. Bradner, Smith & Co.
Cincinnati, Ohio	The Johnston Paper Co. The Whitaker Paper Co.
Cleveland, Ohio	The Cleveland Paper Co.
Columbus, Ohio	Scioto Paper Co.
Dayton, Ohio	Cincinnati Cordage Co. The Whitaker Paper Co.
Des Moines, Iowa	Bermingham & Prosser Co.
Detroit, Mich.	Chope Stevens Paper Co.
Fresno, Calif.	Blake, Moffitt & Towne
Hartford, Conn.	Green & Low Paper Co., Inc.
Indianapolis, Ind.	MacCollum Paper Co.
Jacksonville, Fla.	Jacksonville Paper Co.
Kalamazoo, Mich.	Bermingham & Prosser Co.
Kansas City, Mo.	Bermingham & Prosser Co.
Knoxville, Tenn.	Louisville Paper Co.
Lincoln, Neb.	Western Newspaper Union
Little Rock, Ark.	Roach Paper Co.
Long Beach, Calif.	Blake, Moffitt & Towne
Los Angeles, Calif.	Blake, Moffitt & Towne
Louisville, Ky.	Louisville Paper Co.
Lynchburg, Va.	Caskie Paper Co., Inc.
Manchester, N. H.	C. H. Robinson Co.
Memphis, Tenn.	Louisville Paper Co.
Miami, Fla.	Everglades Paper Co.
Milwaukee, Wis.	Allman-Christiansen Paper Co. Sensenbrenner Paper Co.
Minneapolis, Minn.	Wilcox-Mosher-Leffholm Co.
Nashville, Tenn.	Bond-Sanders Paper Co.
Newark, N. J.	Bulkley, Dunton & Co., Inc.
New Haven, Conn.	Bulkley, Dunton & Co., Inc.
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Oakland, Calif.	Blake, Moffitt & Towne
Omaha, Neb.	Western Paper Co.
Philadelphia, Pa.	Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co.
Phoenix, Ariz.	Blake, Moffitt & Towne
Pittsburgh, Pa.	General Paper Corp.
Portland, Maine	C. H. Robinson Co.
Portland, Ore.	Blake, Moffitt & Towne
Providence, R. I.	Carter, Rice & Co. Corp.
Richmond, Va.	Cauthorne Paper Co.
Rochester, N. Y.	Genesee Valley Paper Co.
Sacramento, Calif.	Blake, Moffitt & Towne
St. Louis, Mo.	Bermingham & Prosser Co. Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc.
St. Paul, Minn.	Inter-City Paper Co.
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Salt Lake City, Utah	Western Newspaper Union
San Diego, Calif.	Blake, Moffitt & Towne
San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
Sioux City, Iowa	Western Newspaper Union
Spokane, Wash.	Blake, Moffitt & Towne
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Tacoma, Wash.	Blake, Moffitt & Towne
Tampa, Fla.	Tampa Paper Co.
Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
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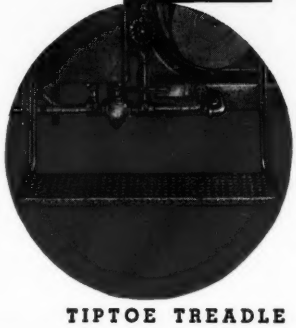
Fred W. Seybold's

crowning achievement of 37 years of cutter engineering and manufacturing!

Fred W. Seybold is known all over the world as the outstanding authority on cutting machine engineering.

LAWSON 46"-52" with completely *hydraulic* clamp



TIPTOE TREADLE

A light touch of the toe brings the clamp down for gauging the work as well as to drive the air out of soft fluffy paper. No need for back-breaking, manual work.

Straight Line Double End Knife Pull • Adjustable Knife Bar Gibs • No Shear Slots or Boxes • Overload Release and Re-Setting Device • Improved Steel Safety Locking Bolt • Gears Operate in Sealed Bath of Oil • Positive Non-Slip, Non-Oiling Friction Disc Type Clutch • Knife Bar Slot Closing Device • Extra Long Clamp Lead • 6" Clamp Opening.

***WRITE FOR FREE BROCHURE:** Complete, fully illustrated descriptions and specifications on the 39" or 46" and 52" **LAWSON CUTTERS** are available on request. Send for them now.*

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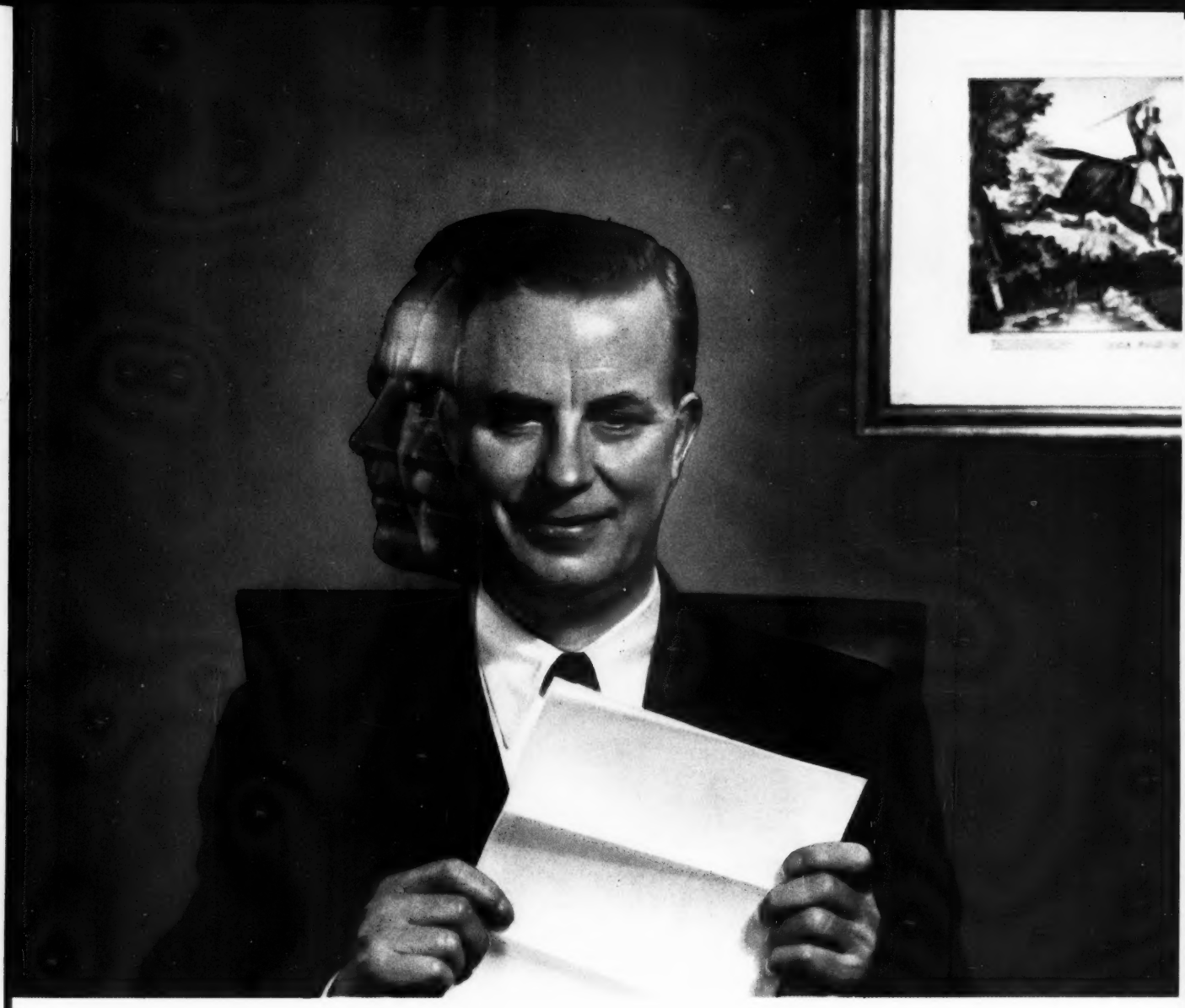
ROCKET
ROTOGRAVURE PRESSES



Put a "*Double-Take*" in every letter!

A "DOUBLE TAKE" is that all-important second look—frequently a look of surprise and delight.

Consider these two important ways to give your letters the benefit of this pleased inspection:

First, go all out—design a new and better letterhead and print it on HOWARD BOND. Every year hundreds of companies modernize their correspondence with improved letterhead designs printed on HOWARD BOND, in either *whitest* white or any of HOWARD'S twelve clean colors.

Second, if a new letterhead is out of the question, have your printer proof your present letterhead on HOWARD BOND. Then *you'll* do the "double take." You'll *see* how this choice bond brings letters and letterheads to life, gives them interest, smartness and appeal. You'll *see* why HOWARD BOND—"The Nation's Business Paper"—is so widely used by thousands of businessmen who place top value on the appearance of their business correspondence.

HOWARD PAPER MILLS, INC. • HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

Howard Bond

"The Nation's Business Paper"

Carriages for Commuters?

After all, there's a place for everything! In business it makes sense to buy supplies and equipment made especially for a particular purpose. And when the purpose is office or factory forms, or any similar kind of printing, operating budgets demand the use of a practical bond like *Maxwell Bond*.

Its low cost saves money at the time of purchase—yes. But its workability—its reaction to pen, pencil, typewriter and printing press, the way it erases and takes carbons—effects a further saving in overhead that assures its continued use. So specify *Maxwell Bond*, thrifty to buy, thrifty to use.

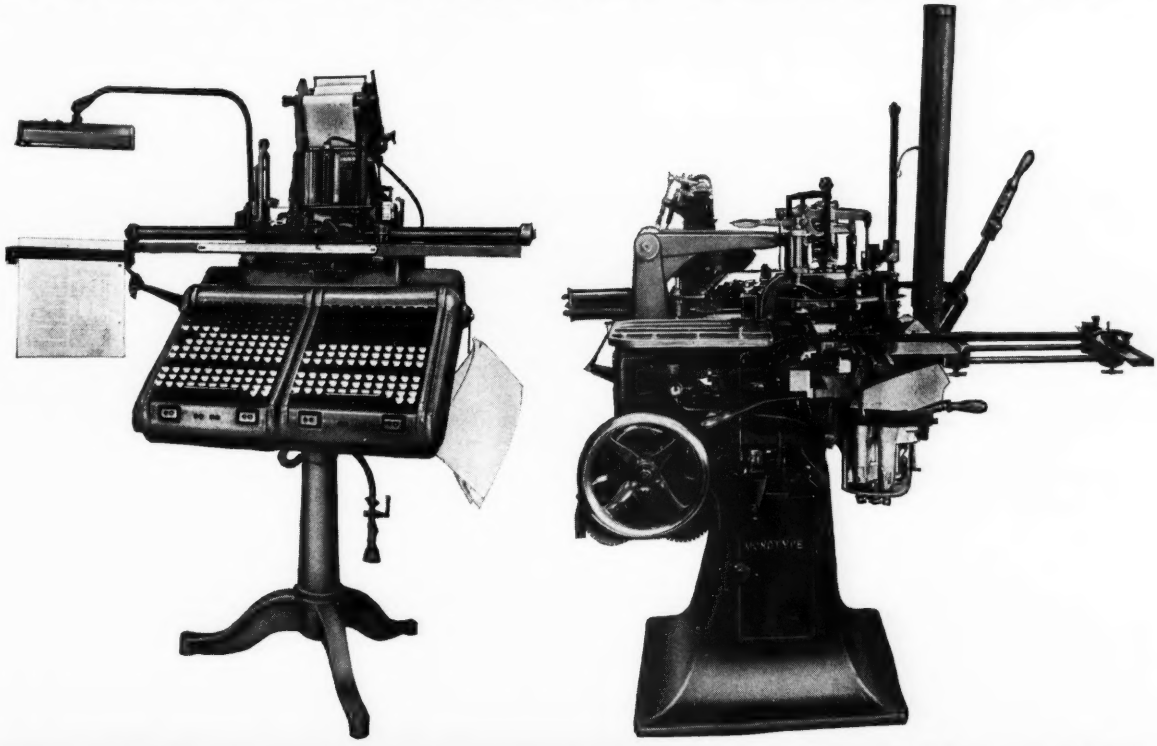
Maxwell Bond

WATERMARKED

America's Favorite Low-Cost Bond

Howard Paper Mills, Inc. • **Maxwell Paper Company Division** • **Franklin, Ohio**

MONOTYPE ANNOUNCES



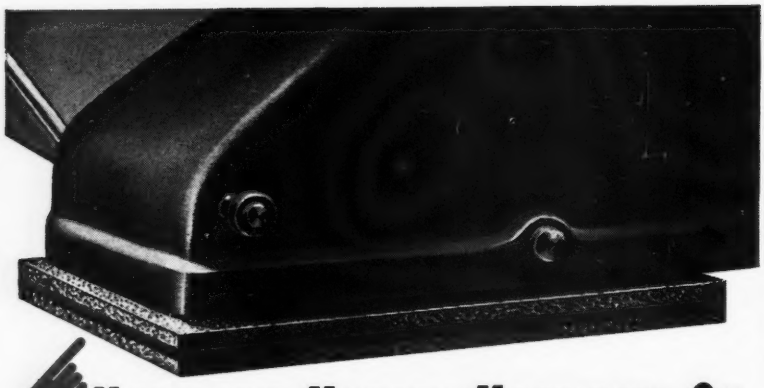
The New 1517

MONOTYPE TYPESETTING MACHINE with Extended Matrix Case . . . 30 additional positions . . . commercially proven . . . now in factory production

★ ★ ★

LANSTON MONOTYPE MACHINE COMPANY

Monotype Building, Twenty-fourth and Locust Streets, Philadelphia 3, Penna.



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UNISORB

...drilling avoided...floors saved!

Miehle No. 70 C & C Press mounted on UNISORB... *without bolts or lag screws*... at Marathon Corporation, Menasha, Wisconsin.

Here's why one of the well-known firms in the printing industry anchors presses, folders, cutters and other machinery the modern way... *on UNISORB!*

TRANSMITTED MACHINE NOISE and VIBRATION REDUCED 60% TO 85%

Lowers machine and building maintenance costs

Higher speed machine operation often possible

UNISORB ANCHORING REQUIRES NO BOLTS, NO LAG SCREWS

Old-fashioned, destructive floor drilling eliminated

Saves installation time as much as 80%—labor costs reduced

Maintenance on machine mounting practically eliminated

Clip this coupon, or write us on your letterhead today..

THE FELTERS COMPANY

210-PI SOUTH STREET, BOSTON 11, MASSACHUSETTS

Offices: New York, Philadelphia, Chicago, Detroit, St. Louis. *Sales Representative:* San Francisco.

Gentlemen: Please send my free copy of "Why It Pays to Anchor Your Printing Machinery with UNISORB." ☐

Please send my free copy of "Felters Precision Cut Felt Parts Manual." ☐

Name .....Title.....

Company Name.....

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City..... State.....

PLASTICOLOR COVER sells home or shop

Kitchen stains, even grease, vanish from Plasticolor Cover at the touch of a cloth. That means long-continued sparkle and freshness for recipe books and such, when attractively bound in one of the six brilliant, sealed-in colors of Plasticolor Cover.

But you say your customers want toughness and durability as much as beauty? Then show them this permanent lamination of plastic film and fine Beckett cover paper. It outlasts dust, dirt, grease, rain, almost anything. For luxury promotion pieces, shop instruction manuals and outdoor displays, Plasticolor Cover helps create the first sale, builds repeat business.

Ten seconds' examination will prove that you can profitably sell Plasticolor Covers to your discriminating customers. Ask your Beckett paper supplier or write us for samples.

THE DOBECKMUN COMPANY

Cleveland 1, Ohio • Berkeley 2, Calif

P. S. Also look at Doplex Brilliant, the lightweight twin of Plasticolor. Permanent, sparkling brilliance, in nine colors, for package wraps, box coverings, labels and such uses.

DOBECKMUN
PLASTICOLOR COVER
DOPLEX BRILLIANT

KEYED TO TODAY'S NEEDS

Snowland Bond

. . . A FRASER PAPER

Snowland Bond is no newcomer. It is the same excellent sheet made in the same exacting manner that has built for it a big following over the period of years during which it has been sold under the private brand names of many leading distributors. But Snowland Bond *is* newly important. For today, more than ever, when every printing effort and every business operation must pay off—here's a paper that is a definite asset for profitable printing runs and practical business purposes.

. . . sold by Leading Distributors

Snowland Bond is a surface sized sheet made in white and six distinctive colors. Stocked in standard sizes and weights. Quality control is exercised in every operation from the woodlands through to the finished product.

THE FRASER VOYAGEUR-SYMBOLIZING PROGRESS

FRASER PAPER, LIMITED

Sales Office—420 Lexington Avenue, New York 17, N. Y.

Other Offices in Chicago and Cleveland

●

Mills — Madawaska, Maine.

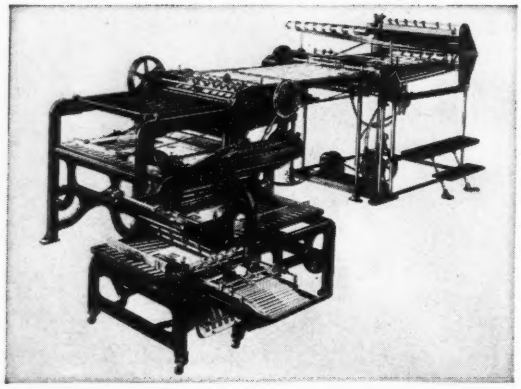
GENTLEMEN: Please send me the new Snowland Bond Sample Book.

YOUR NAME_____

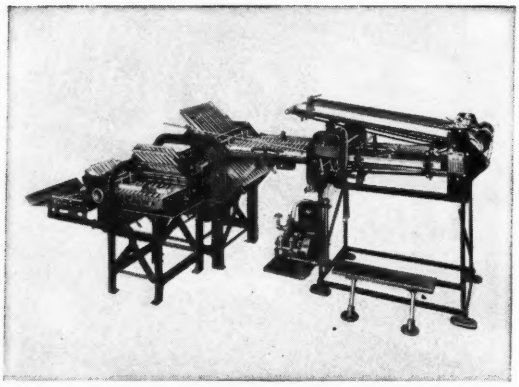
COMPANY_____

ADDRESS_____

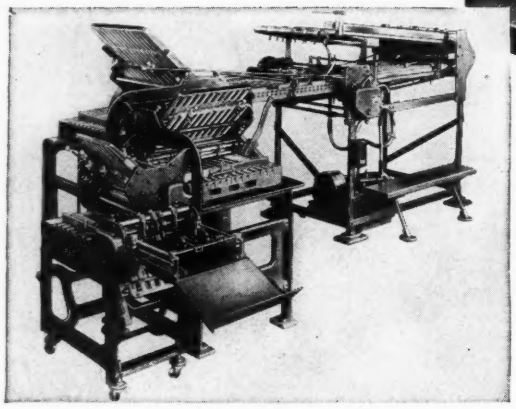
CITY_____ STATE_____



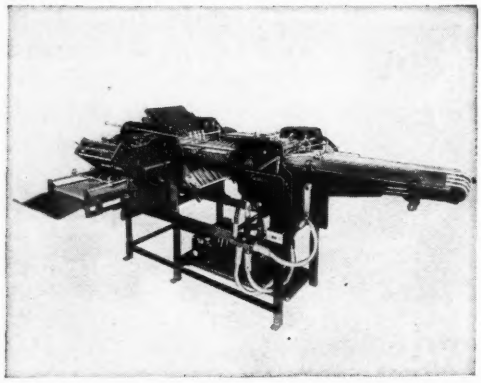
CLEVELAND "K"—10x12"—39x52"-64". *For catalog signatures in 16s, 24s, 32s, booklets singly or in gangs, broadsides and special jobs in large sheet sizes. Adapted to folding of road maps and to other types of special folding.*



CLEVELAND "OO"—4x6"—22x28". *For direct mail folders and booklets and general job work. Specially adapted to trade binderies and larger printing plants as it includes larger sheet size than Model "OS".*

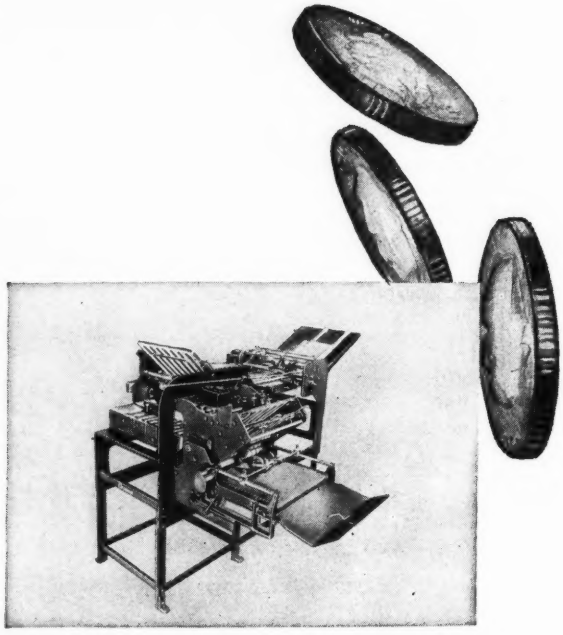


CLEVELAND "MS"—5x7"—25x38". *For direct mail folders and booklets, general job work singly or in gangs, catalog and publication signatures. Folds 3 r.a. 16 page signatures up to 9½x12½" page, and 4 r.a. 32 page signatures up to 6¼x9½" page. Adapted to all types of printing plants requiring 25x38" sheet. Suitable for replacing old Model "B".*

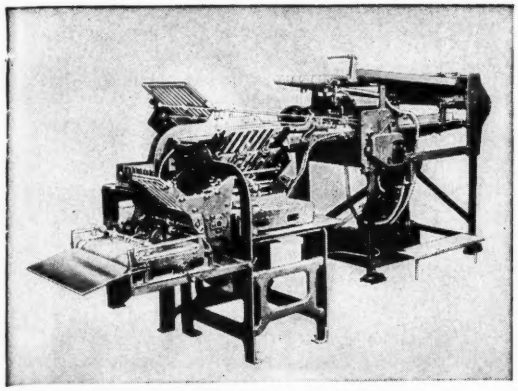


MODELS "WWC" (above) and "WWF" (right), *when equipped with small signature attachment, will fold package inserts down to ¾" wide, at high speed and stacked vertically for easy banding.*

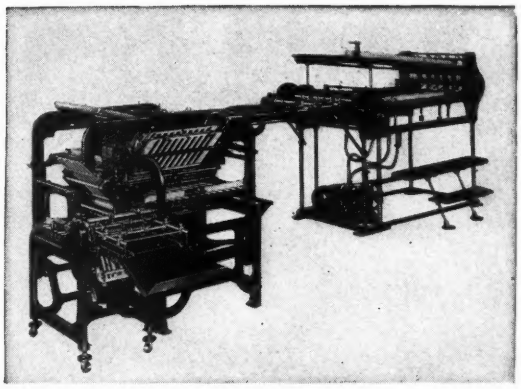
CLEVELAND "WWC"—4x5"—14x20". *Equipped with air wheel continuous feeder. For 4, 6, 8 and 12 page circulars, greeting cards, package inserts, etc.*



CLEVELAND "WWF"—3x4"—14x20". *Equipped with friction continuous feeder. Simplest type available for average work. For 4, 6, 8 and 12 page circulars, greeting cards, package inserts, etc.*



CLEVELAND "OS"—4x6"—19x25". *For direct mail folders and booklets and general job work. Specially adapted to medium and small printing plants.*



CLEVELAND "MM"—5x7"—28x44-58". *For direct mail folders and booklets singly or in gangs, general job work, catalog and publication signatures. Folds 3 r.a. 16 page signatures up to 11x14" page and 4 r.a. 32 page up to 7x11" page. Well adapted to publication and catalog plants using Dexter Jobbers and Double 16s and to trade binderies.*

BINDERY ECONOMIES

... SEVEN Cleveland Folding Machines!

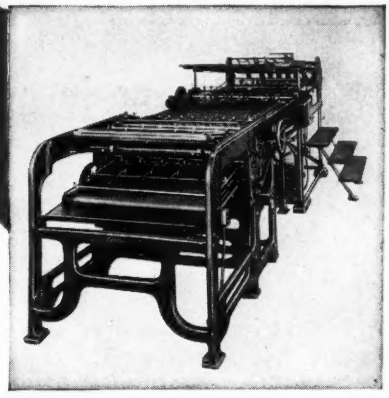
To meet your individual requirements and to serve the needs of the Graphic Arts industry as a whole, Cleveland Folding Machines are available in *seven* models, handling sheets from 3 x 4″ to 42 x 62″.

Each model folds a wide range of signatures for the maximum sheet it accommodates.

Whether your requirements call for folding 4 page circulars, package inserts, greeting cards, magazine signatures in 16s or 32s, booklets singly or in gangs or broadsides and special jobs, there's a Cleveland to meet your specific need with sound performance and high speed—backed by a dependable service if and when needed.

Cleveland Folders will bring to your plant the exceptional earning power made possible by all Dexter Equipment.

Write for more information about the *seven* Cleveland Folders—and other Dexter and Christensen Machines for the printing and binding industries.



CLEVELAND "KK"—Four Parallel 10x12"—42x62". *For work printed in gangs of two or more up in 4, 6, 8, 12, 16, 20, 24, 28 and 32 pages. Makes one fold, 2, 3 and 4 parallel folds.*

Dexter and Christensen Machines

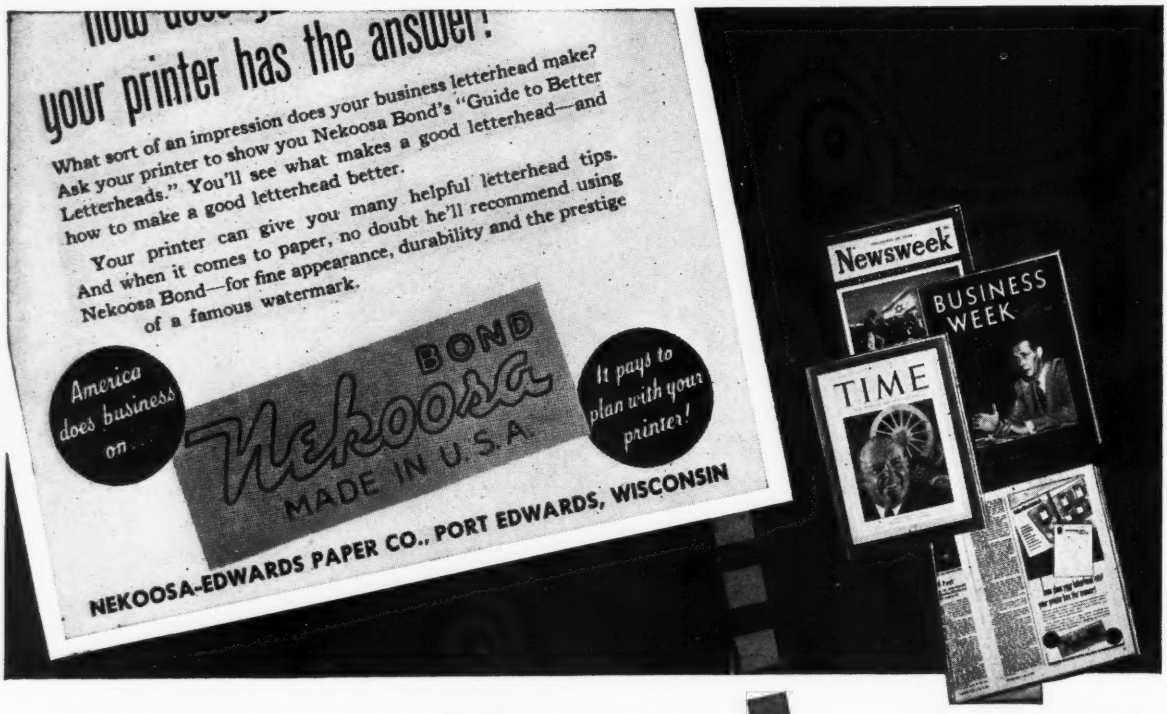
Sold and serviced by

Dexter Folder Company • General Sales Offices, 330 West 42nd Street, New York 18, N. Y.

SALES REPRESENTATIVES: Chicago, Philadelphia, Boston, Cleveland, Washington, St. Louis

AGENTS: Dallas, Denver, San Francisco, Los Angeles, Seattle, Toronto, Montreal, Winnipeg . . . and in Foreign Countries

Christensen Machines are built by Christensen Machine Company at Racine, Wis.


your printer has the answer!
What sort of an impression does your business letterhead make? Ask your printer to show you Nekoosa Bond's "Guide to Better Letterheads." You'll see what makes a good letterhead—and how to make a good letterhead better.
Your printer can give you many helpful letterhead tips. And when it comes to paper, no doubt he'll recommend using Nekoosa Bond—for fine appearance, durability and the prestige of a famous watermark.
America does business on...
BOND Nekoosa MADE IN U.S.A.
It pays to plan with your printer!
NEKOOSA-EDWARDS PAPER CO., PORT EDWARDS, WISCONSIN
Newsweek
BUSINESS WEEK
TIME

Look for Nekoosa Bond advertisements in Time, Newsweek *and* Business Week. *They all say: "It pays to plan with your printer!"*

In 1949, as in previous years, NEKOOSA is again telling America . . . . . .

Again, as in previous years, Nekoosa Bond advertisements in leading national magazines are displaying the slogan: *It pays to plan with your printer!*

This is one way of showing our appreciation to the thousands of printers who are continuously recommending and using Nekoosa Bond and other Nekoosa *Pre-Tested* Business Papers. We like to work with printers—just as printers like to work with Nekoosa Bond.

It pays to plan with your printer!

AMERICA DOES BUSINESS ON

NEKOOSA-EDWARDS PAPER COMPANY
PORT EDWARDS, WISCONSIN

BOND Nekoosa MADE IN U.S.A.

5 All-Purpose Proof Presses For Plants of All Sizes..

While used mainly for general proving purposes by small and medium sized printers and typesetters, these machines are also practical as auxiliary equipment in larger plants. Write for a copy of ATF's new "Illustrated Price List" of twelve Vandercook Proof Presses sold in the U.S.A. by American Type Founders.

VANDERCOOK PRE-PRESS SYSTEM —CUTS COSTS!

★ No. 3 VANDERCOOK

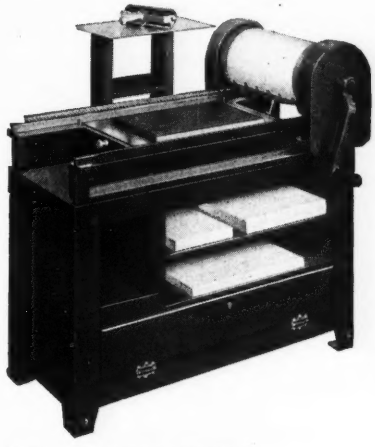
Bed size 15" x 35" . . . Maximum sheet 14¾" x 20" and Maximum form 14" x 18" . . . Floor space 2'2" x 6'6".

★ No. 1 VANDERCOOK

Bed size 16" x 21" . . . Maximum sheet 15¾" x 19" and Max. form 15" x 17¼" . . . Floor space 2'4" x 2'8".

★ No. 2 VANDERCOOK

Bed size 24" x 50½" . . . Maximum sheet 23¾" x 26½" and Maximum form 23" x 24½" . . . Floor space 2'8" x 4'3".



★ No. 14 VANDERCOOK

Bed size 17⅝" x 25½" . . . Maximum sheet 17⅜" x 25" and Maximum form 16⅝" x 23¼" . . . Floor space 2'7" x 3'9".

★ No. 0 VANDERCOOK

Bed size 13" x 32" . . . Maximum sheet 12¾" x 27" and Maximum form 12½" x 25" . . . Floor space 1'6" x 3'6".

Five of twelve Vandercook Proof Presses sold in the U.S.A. by

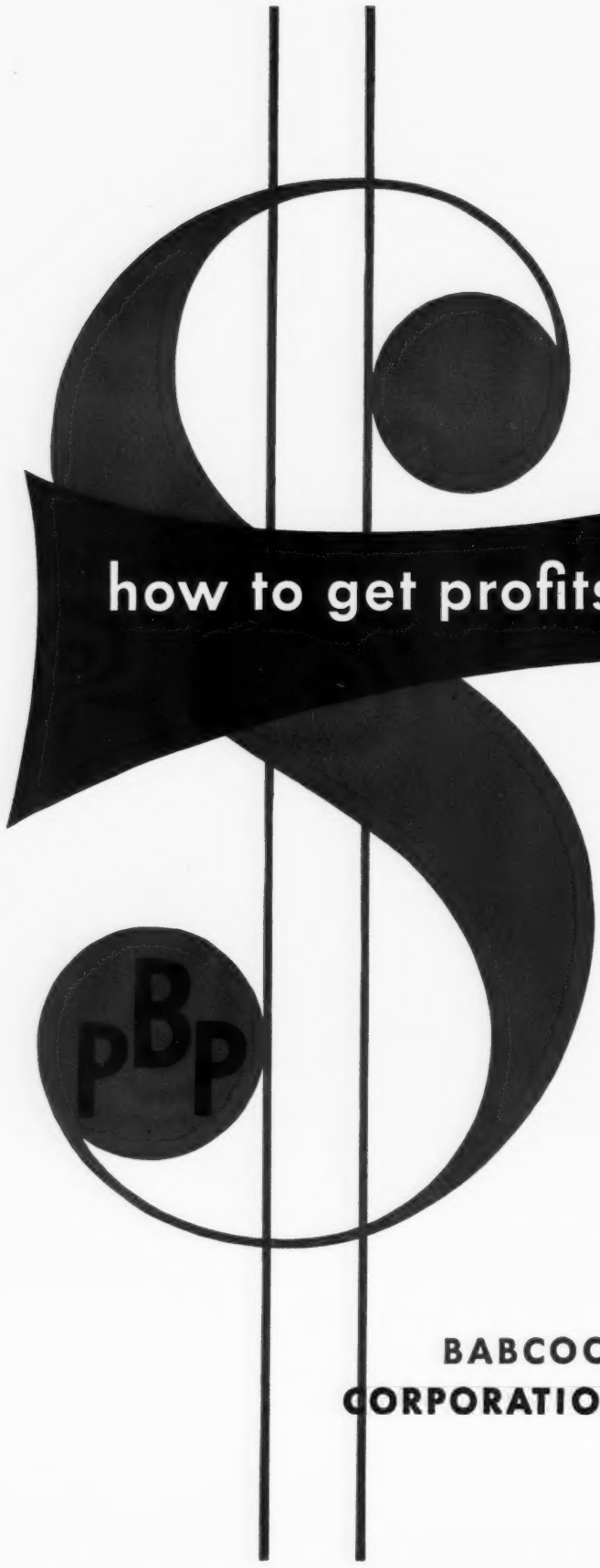
American Type Founders 200 Elmora Avenue, Elizabeth 3, New Jersey

Branches in Principal Cities

ATF

Manufacturers of: Kelly Presses, Little Giant Presses, Chief Offset Presses, Web Offset Presses, Gravure Presses, Foundry Type and Process Cameras

Distributors of: Vandercook Proof Presses, Composing Room, Pressroom and Bindery Equipment



Designers and Manufacturers · Rotary Sheet Fed Presses · Rotary Web Fed Presses Rotogravure Presses · Flat Bed Presses · Cutters and Creasers · Magazine Folders · Rubber Plate Presses

business men
by the thousands
are learning

how to get profits from color

the babcock 2 or 3 color
sheet fed rotary press
offers many advantages...

Inking arrangement of same construction as the large rotary web fed magazine presses.

No transfer during printing assuring accurate register through the use of a single impression cylinder.

Press frames of rigid construction 5½" thick mounted on a bed plate 8" thick thereby making high speed possible.

Large sheet size 50 x 72 permitting greater production at a much lower operation cost.

2 or 3 colors in one run, again increasing production and reducing costs.

Designed by Pressmen for Pressmen.

BABCOCK PRINTING PRESS CORPORATION

Established 1882

PHONE 4-5145

800 WAYNESBURG ROAD S. E.

CANTON, OHIO

NORTHWEST
PEDIGREED
PAPERS

Always make good printing better

THE NORTHWEST PAPER COMPANY • CLOQUET, MINNESOTA

Printing Papers

NORTHWEST BOND
NORTHWEST LEDGER
NORTHWEST MIMEO BOND
NORTHWEST OFFSET
NORTHWEST INDEX BRISTOL
NORTHWEST POST CARD
KLO-KAY BOOK
KLO-KAY LABEL
MOUNTIE LABEL
MOUNTIE BOOK
MOUNTIE OFFSET
MOUNTIE TEXT
CARLTON BOND
CARLTON LEDGER
CARLTON MIMEOGRAPH
CARLTON DUPLICATOR
NORTH STAR WRITING
POSTER

THE

Northwest

PAPER COMPANY

CLOQUET, MINNESOTA

Sales Offices

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MINNEAPOLIS 2
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ST. LOUIS 3
SHELL BUILDING

Envelope Papers

NORTEX WHITE
NORTEX BUFF
NORTEX GRAY
MOUNTIE
CARLTON

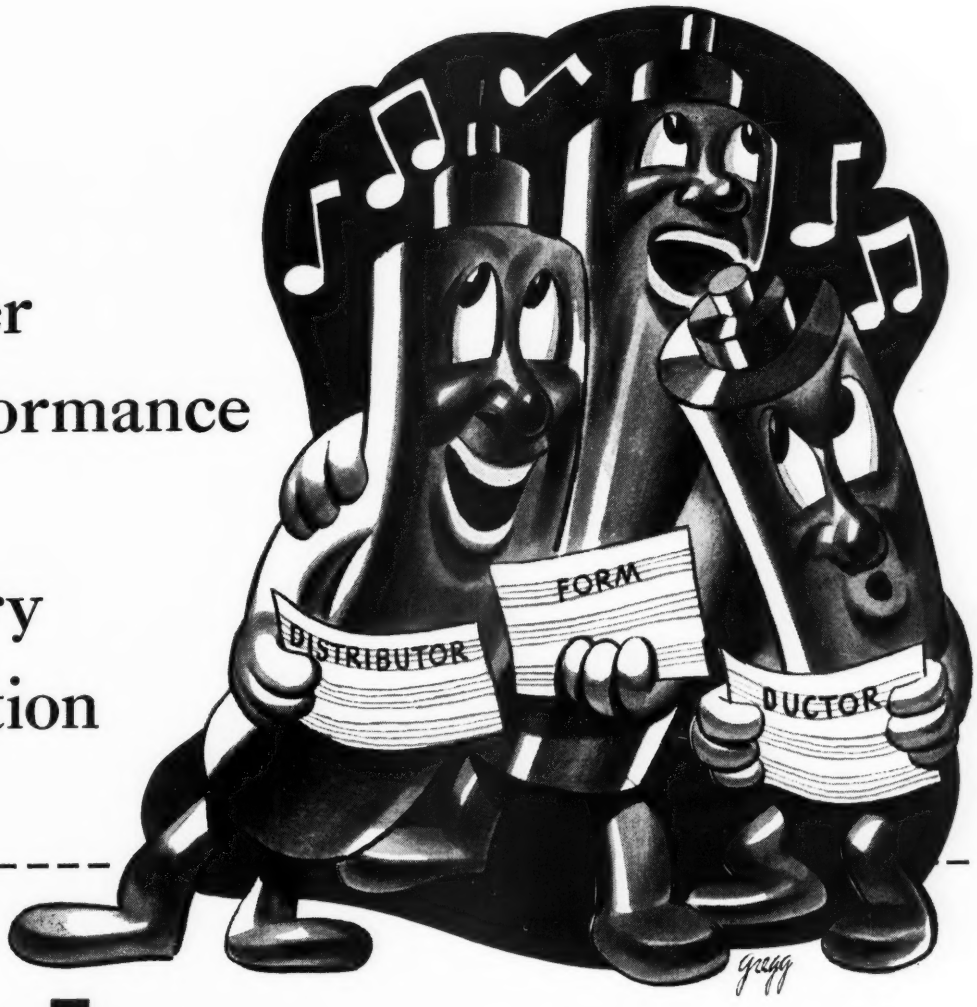
Converting Papers

PAPETERIES
DRAWING
ADDING MACHINE
REGISTER
LINING
GUMMING
COATING RAW STOCK
CUP PAPER

NORTHWEST PEDIGREED PAPERS ALWAYS MAKE GOOD PRINTING BETTER

5305

For Super Performance in Every Position



USE dayco ROLLERS

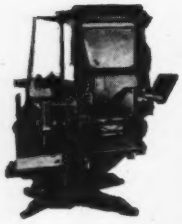
For distributor, form and ductor, Dayco Rollers give you just the right "not too soft, not too hard" effect you need for perfect printing. Their velvety surface picks up just the right amount of ink and distributes it smoothly and evenly. Made tough, they are not affected by rules and type when forms are run horizontally.

Dayco all-weather rollers save changing every winter and summer. They keep their same tack, same diameter with any ink in hot or cold, wet or dry weather. They won't crack, chip, melt or swell. Give super performance on high speed runs for millions of impressions.

For offset or letterpress, Daycos last as much as four times longer than ordinary rollers. You'll be money ahead, have fewer adjustments, have less trouble with Dayco Rollers on every position on your presses. Write: *The Dayton Rubber Company, Dayco Roller Division, Dayton 1, Ohio.*

by Dayton Rubber

Pioneers of Improvements for Better Printing with lithographic, letterpress & newspaper Rollers; Color Separators and Fountain Dividers.



Linotype Research announces

New developments to cut maintenance costs— simplify operation

HERE ARE some of the new Linotype improvements. These, and many more, are supplied at no extra cost *on every Linotype now being shipped from the factory.*

The new cam construction completely eliminates wear on the pot pump cam surface . . . roller rides only on hardened-steel shoes avoiding any maintenance problems; a new adjustment for the pot pump spring permits simple adjustment of the plunger pressure; the Linolizing* process reduces mold maintenance. These are but a few developments from Linotype Research which help lower operating and maintenance costs.

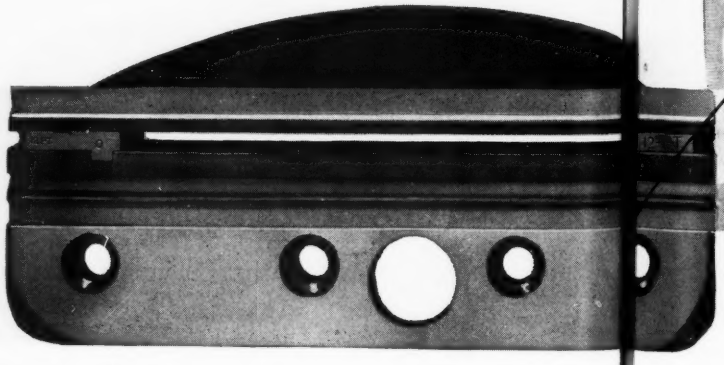
Other improvements (not illustrated) include the new delivery slide long finger which requires no adjustment for varying lengths of lines; a mold slide safety which stops the machine instantly if anything interferes with forward motion of mold slide; separate Micro-Therm crucible and mouthpiece controls to provide closer temperature regulation and adjustable orifices to simplify the initial setting of the new gas pot; a new delivery lever construction that permits quicker, easier adjustment from the front of the machine.

And there are still *many more* improvements already on new machines . . . all designed to cut costs . . . all resulting from Linotype Research. It is Linotype Research which enables your Linotype representative to help you plan a more efficient composing room.

*TRADE MARK—SURFACE TREATMENT

Set in Linotype Times Roman, Erbar Bold Condensed and the Spartan Family

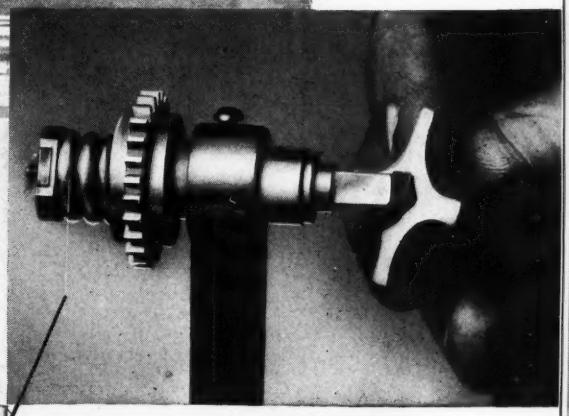
TO CUT MOLD MAINTENANCE, all Linotype molds are now Linolized. This new process prevents metal from fusing to molds and reduces daily maintenance. Linolized molds make slug ejection smoother—cut matrix damage. Linolizing is free on all new Linotype molds.



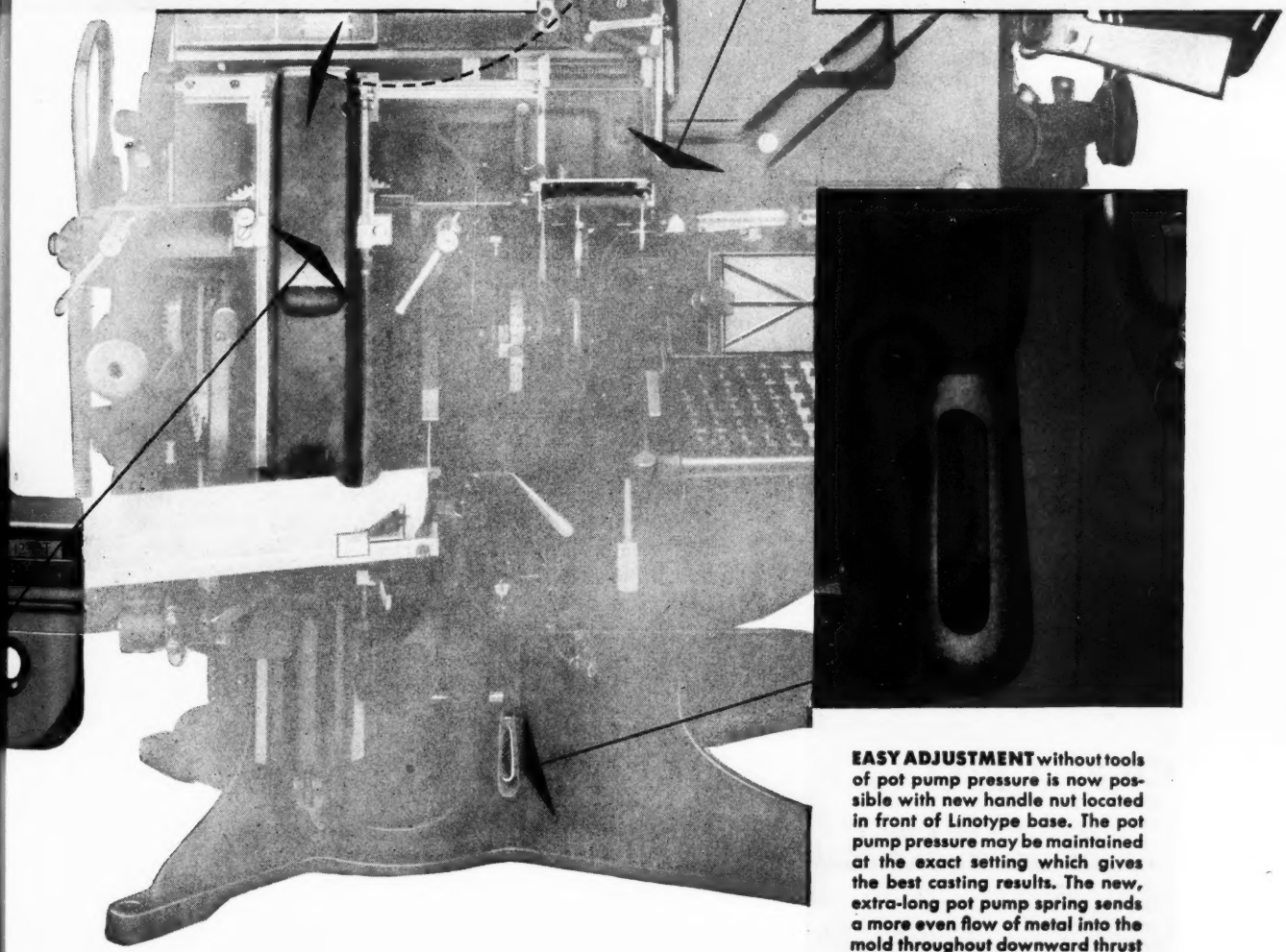
LINOTYPE *LEADERSHIP THROUGH RESEARCH*

MERGENTHALER LINOTYPE COMPANY • 29 Ryerson Street, Brooklyn 5, N. Y.

TO REDUCE WEAR, a new construction for pot pump cam allows the cam roller to make contact only with hardened-steel shoes—wear on the surface of the cam is eliminated. The plunger is raised by cam-shoe action but returns to normal position before casting—no additional air can enter pot throat. Top illustration shows the roller in lifted position. The bottom photo illustrates roller making contact with hardened-steel shoe.



PERMANENT ADJUSTMENT of star wheel friction from the front of the machine is assured with new shaft and square-headed adjusting screw. Tension is changed by revolving the screw head—star wheel itself can be used for making this adjustment. A pin prevents nut from dropping off shaft. Replacing star wheel on shaft locks setting.



EASY ADJUSTMENT without tools of pot pump pressure is now possible with new handle nut located in front of Linotype base. The pot pump pressure may be maintained at the exact setting which gives the best casting results. The new, extra-long pot pump spring sends a more even flow of metal into the mold throughout downward thrust of the pot pump plunger.

HERE'S WHAT MAKES HI-SPEED QUOINS SO VALUABLE

Cut-away view shows how ONE 7½-inch Challenge Hi-Speed Quoin operates as a series of FIVE ordinary quoins.

SIZE	HI-SPEED		ORDINARY
3"	1	equals	2
4½"	1	equals	3
6"	1	equals	4
7½"	1	equals	5
9"	1	equals	6
10½"	1	equals	7
12"	1	equals	8

It's a CHALLENGE®

Every time you buy a 7½-inch Hi-Speed Quoin you are getting the equivalent of FIVE ordinary quoins. (Corresponding equivalents for other sizes are shown in the table at left). That's why two self-contained, self-locking Hi-Speed Quoins do the work of four to eight ordinary quoins with time saving up to 80%.

What's more, Challenge Hi-Speed Quoins produce better, safer lock-ups—no slippage...no reglets...no work-ups. Quoins operate with DIRECT EXPANSION—a point at a time. An easy-to-read point indicator makes it possible to unlock and relock the form without disturbing the register. The accuracy, construction and finish of both quoin and key are further insurance of profitable performance and a guaranty of durability.

Challenge Hi-Speed Quoins—for press or foundry forms—are made in seven sizes. Ask for data and prices NOW!

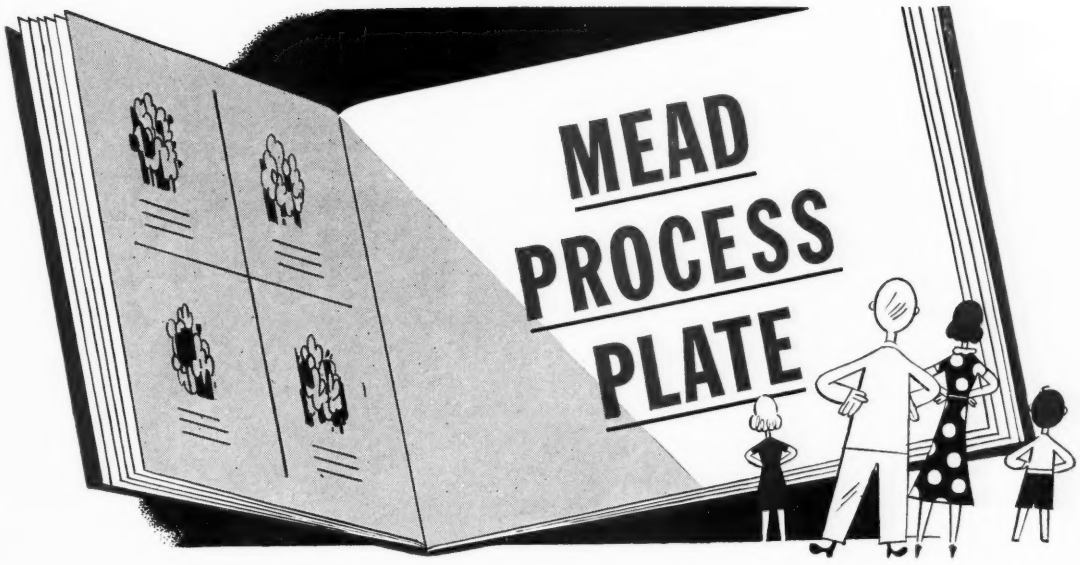
THE CHALLENGE MACHINERY COMPANY

Main Office and Factory:
GRAND HAVEN, MICHIGAN

Challenge
Reg. U. S. Pat. Off.

"Over 50 Years in Service of the Graphic Arts"

DEALERS IN ALL PRINCIPAL CITIES



THE ECONOMICAL PROCESS-COATED PAPER

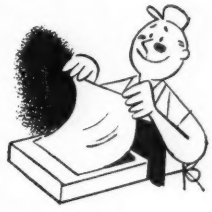
A smooth, coated paper, specially developed for the printing of halftones at high speeds, Mead Process Plate has become in the space of a few years one of the most popular papers used for catalogs, folders, and other advertising.

This bright white paper, economical in price, versatile in use, provides a highly uniform surface for the printing of halftone screens as fine as 120 lines per inch. It performs equally well in one-color or four-color process printing, using standard, "heat-set" or "flash-dry" inks.

Mead Process Plate is just one of the many diversified printing papers in the Mead family. For businessmen who are proud of their work, Mead Bond, "The Bond of American Business," and Mead Cockle Bond in cream laid and white provide genuinely watermarked papers for the finest of office stationery. Other members of the Mead line of genuinely watermarked business papers are Mead Mimeo Bond, Mead Duplicator, and Mead Ledger.

Among the more moderately priced papers for business use, the Moistrite line . . . Moistrite Bond, Moistrite Mimeo, Moistrite Ledger, and Moistrite Duplicator . . . represents the highest standard of quality and printability that is obtainable today.

For catalogs, folders, and other pieces to be produced by offset lithography, the smooth white surface of Mead Moistrite Offset, the Conditioned Offset Paper, recommends itself to the experienced lithographer or advertiser.



In the many important categories of book and advertising papers Mead manufactures such well-known brands as Mead Opaque, Moistrite Opaque, Meadfold Enamel and Meadgloss Offset Enamel, D & C Black & White, Printflex Cover, Richfold Enamel, and Richgloss Offset Enamel.

Among Mead cover stocks, bristols, indexes, and blanks, there are such well-known brands as Wheelwright Fiberfold Bristol, Superfine and Olympic Bristol, Strongheart Index, Spotlight Cover, and Leatheright Cover.

In addition to its printing papers, The Mead Corporation manufactures a variety of specialties such as Mead Corrugating and Liner Board; Mead Heat Seal Label Paper; Mead Locker and Home Freezer Paper; Mead Laminated, Impregnating, and Waxing Papers.

For practically every need in paper today there is a standardized product of The Mead Corporation.

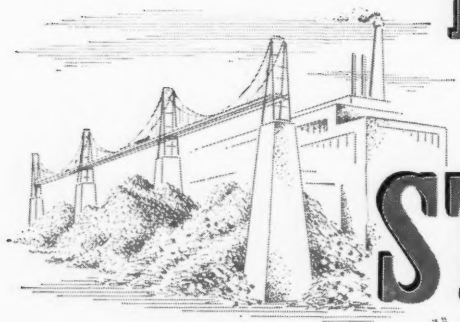
THE MEAD CORPORATION

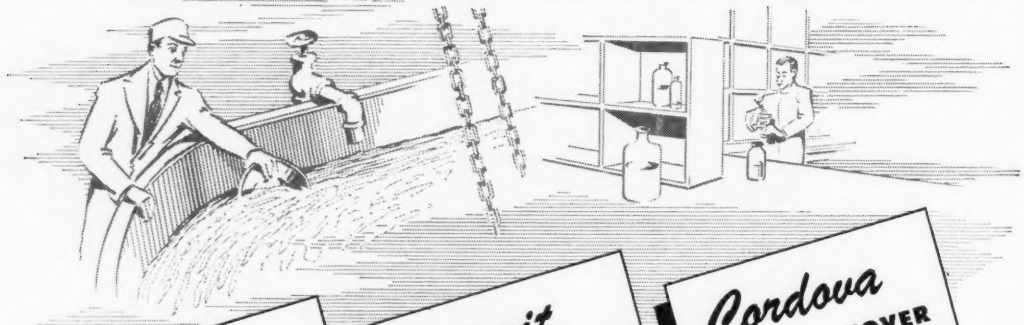
"PAPER MAKERS TO AMERICA"

MEAD *papers*
EST. 1846

Sales Offices: The Mead Sales Company, 230 Park Avenue, New York 17 • Dayton • Chicago • Boston • Philadelphia

FINE *Papers of* STRENGTH





Delkote
COVER

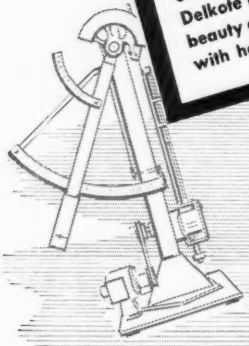
Extra strong . . . extra tough . . . extra heavy (14 pts.) . . . soilproof and moisture resistant. Richly embossed yet easy to print, Delkote retains its original beauty and distinctiveness with hard wear.

Detroit
EMBOSSED

A cover stock rich in appearance with crisp embossing and clear, sparkling colors. Has finish and uniformity that assure perfect impressions. Though moderate in price, it has qualities of durability found only in expensive covers.

Cordova
COVER

A clean, clear sheet, with perfect plated, smooth finish and wide range of modern colors. Cordova's qualities provide superior printability . . . make it ideal for printed pieces that must be distinctive yet hard-working.



Cordova
BRISTOL

Heavier than Cordova Cover, it is unexcelled for scores of printed pieces, broadsides, menus, jackets, etc. Has perfect printability, extra long life that offers extra economy for such uses.

Tympan

Detroit special treated Tympan remains uniform throughout in all normal temperatures, under all atmospheric conditions. Tough, ink-repellent, with a smooth and hard surface that resists all cutting edges in the form.

DETROIT *Sulphite*

PULP AND PAPER COMPANY
DETROIT 17, MICHIGAN

Photo courtesy of the Chicago, Milwaukee, St. Paul and Pacific Railroad

Printing—So Realistic You Hear the Diesels Roar

With photographs of speeding Diesels, luxurious trains and breath-taking scenery... vividly reproduced on a Consolidated Coated Paper... "The Milwaukee Magazine" tells a convincing story of splendid service and interesting places when traveling The Milwaukee Road.

The Chicago, Milwaukee, St. Paul & Pacific is one of several great transcontinental railroads that regularly use Consolidated Coated for finer and more realistic reproductions of photographs in printed promotional pieces.

*Consolidated Coated** *Papers* { PRODUCTION GLOSS / MODERN GLOSS*

If you have used *coated* papers regularly, you can reduce paper costs substantially by specifying Consolidated. If you normally use *uncoated* stocks, a change to Consolidated Coated will "step up" the attractiveness of your printed pieces at no increase in cost.

Manufactured by modern, "streamlined" methods, Consolidated Coated Papers are superior in quality. Priced in the range of uncoated stocks, they are practical even when paper costs must be figured closely.

Manufactured in weights down to 45 pounds, Consolidated Coated Papers are ideal for an extremely wide range of printing.

CONSOLIDATED · COATED · PAPERS

*Reg. U. S. Pat. Off.

CONSOLIDATED WATER POWER & PAPER COMPANY

MAIN OFFICES
WISCONSIN RAPIDS, WISCONSIN

Five Modern Mills

SALES OFFICES
135 SO. LA SALLE ST., CHICAGO 3

also manufacturers of

CONSOWELD
DECORATIVE & INDUSTRIAL LAMINATES

For the margin of difference
that distinguishes your printing . . .

Pick the paper that's Pick-Resistant

One test of a fine printing paper is its ability to reproduce brilliance and depth in either monotone or multicolor. That's where *pick-resistance* counts . . . and where Levelcoat* printing papers excel. For in Levelcoat, a special combination of coating materials and base stock provides pick-resistance to an exceptional degree. Add this important printing quality to Levelcoat brightness . . . smoothness . . . runability. You then see why, in choosing any printing paper, it's wise to look at Levelcoat. And to *pick the paper that's pick-resistant*— for that margin of difference that distinguishes your printing.

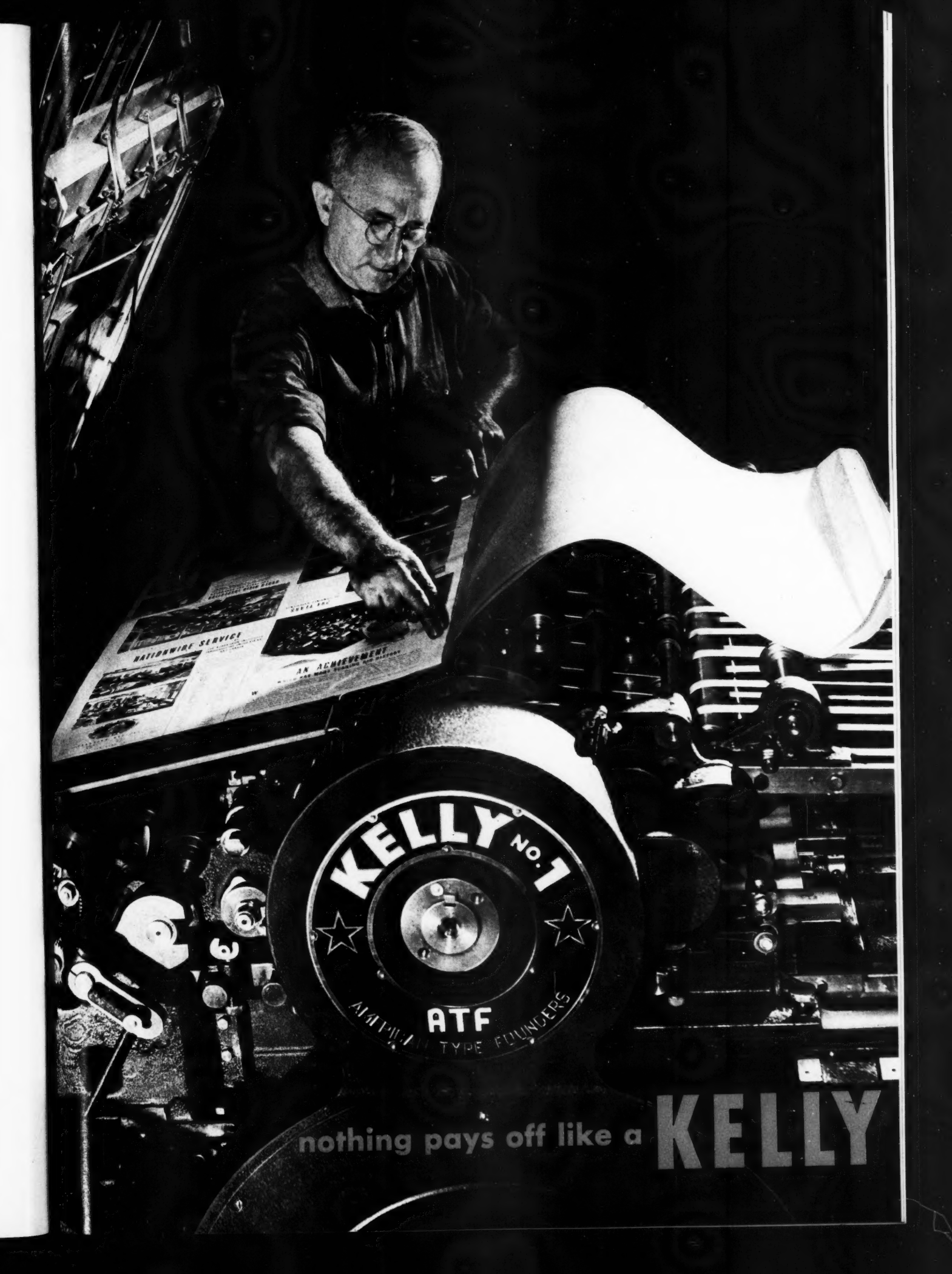
*Levelcoat** **PRINTING PAPERS**

A PRODUCT OF Kimberly Clark RESEARCH

Levelcoat papers are made in these grades: Trufect, Multifect* and Rotofect*.*

KIMBERLY-CLARK CORPORATION
NEENAH, WISCONSIN

*T. M. REG. U. S. PAT. OFF.

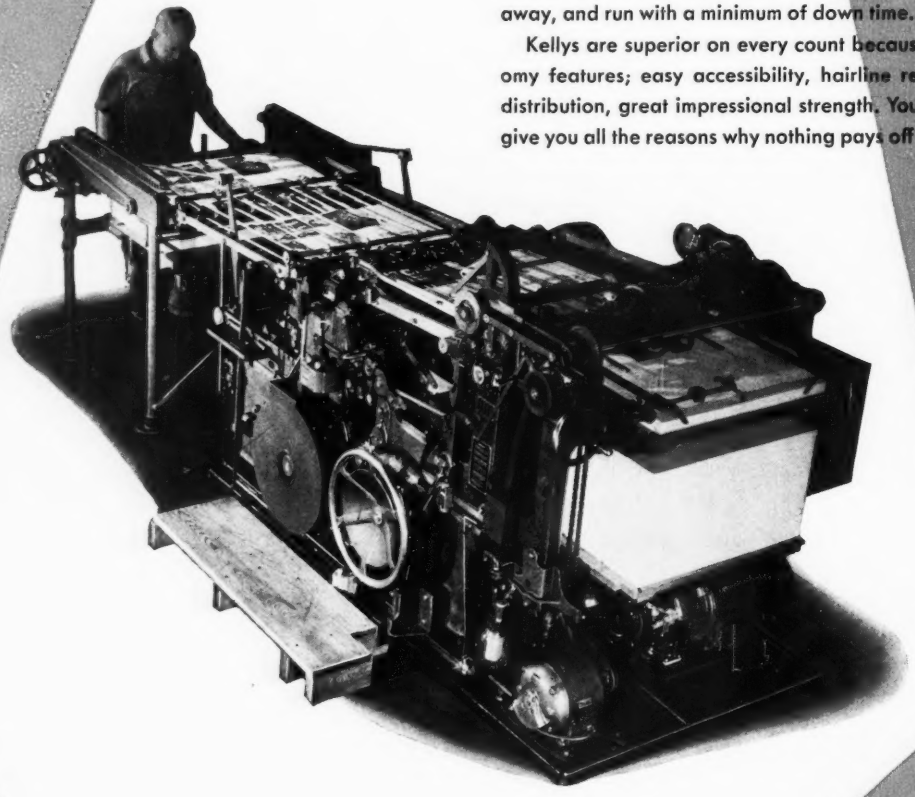

KELLY NO. 1
ATF
TYPE FOUNDERS
nothing pays off like a KELLY

nothing pays off like a KELLY

...in production
...in profits

Kelly presses are unexcelled as quantity producers. They turn out the greatest number of salable impressions. They handle all qualities, including the finest process color work; all size sheets up to 24 x 35; all papers from onionskin to 6-ply card. And Kellys are unequalled as profit producers because of their low cost of operation and long life. They are easy to make ready, quick to get away, and run with a minimum of down time.

Kellys are superior on every count because the Kelly is packed with economy features; easy accessibility, hairline register, the famous pyramid ink distribution, great impressional strength. Your ATF Representative gladly will give you all the reasons why nothing pays off like a Kelly.



NO. 2 KELLY
Sheet-sizes from
8½ x 11 to 24 x 35

NO. 1 KELLY
Sheet-sizes from
8½ x 11 to 22 x 28

STYLE C KELLY
Sheet-sizes from
7 x 10 to 17½ x 22½

American Type Founders

200 Elmora Avenue, Elizabeth 8, New Jersey

Branches in Principal Cities

Manufacturers of: Kelly Presses, Little Giant Presses, Chief Offset Presses, Web Offset Presses, Gravure Presses, Foundry Type and Process Cameras.

Distributors of: Vandercook Proof Presses, Composing Room, Pressroom and Bindery Equipment.

Some Facts About

PRINTING COSTS

___ PAPER
___ PRESS EQUIPMENT
___ ENGRAVING
___ LABOR
___ PRINTING INKS

IF you bought a new car this year, chances are you paid just about twice as much for it as you would have for a similar model in 1940.

In 1948, the average family spent more money for food *alone* than it did for *all* living expenses—food, shelter, and clothing—in 1939.

And it is no news to printers that, as with other commodities, the cost of the components which go to make up a print job have risen, too. Labor, paper, press equipment, and engraving have gone up from 75 to 110 per cent from 1940 to 1949.* *Yet printing inks have advanced in price less than 35 per cent in a like period!*

Furthermore, research paid for by printing ink manufacturers has resulted in developments and improvements which have contributed to the progress of printing. And, in some instances, these improvements have permitted efficiencies (such as faster press runs) that have helped to create savings for the printer.

The cost of printing inks, relative to other factors of expense involved in printing, is very small. But despite its small cost, ink serves a vital function in printing. On a printed surface, *it's the ink you see.* Printing ink is the medium that transforms a blank page into something attractive and pleasing to the eye, gives it the power to inform, to sell and to record.

No far-sighted printer risks jeopardizing an investment of many dollars tied up in a printing job to save a few pennies by using inks not best suited to his purpose.

National Association of Printing Ink Makers

1440 Broadway, New York City

**Figures from an authentic survey.*

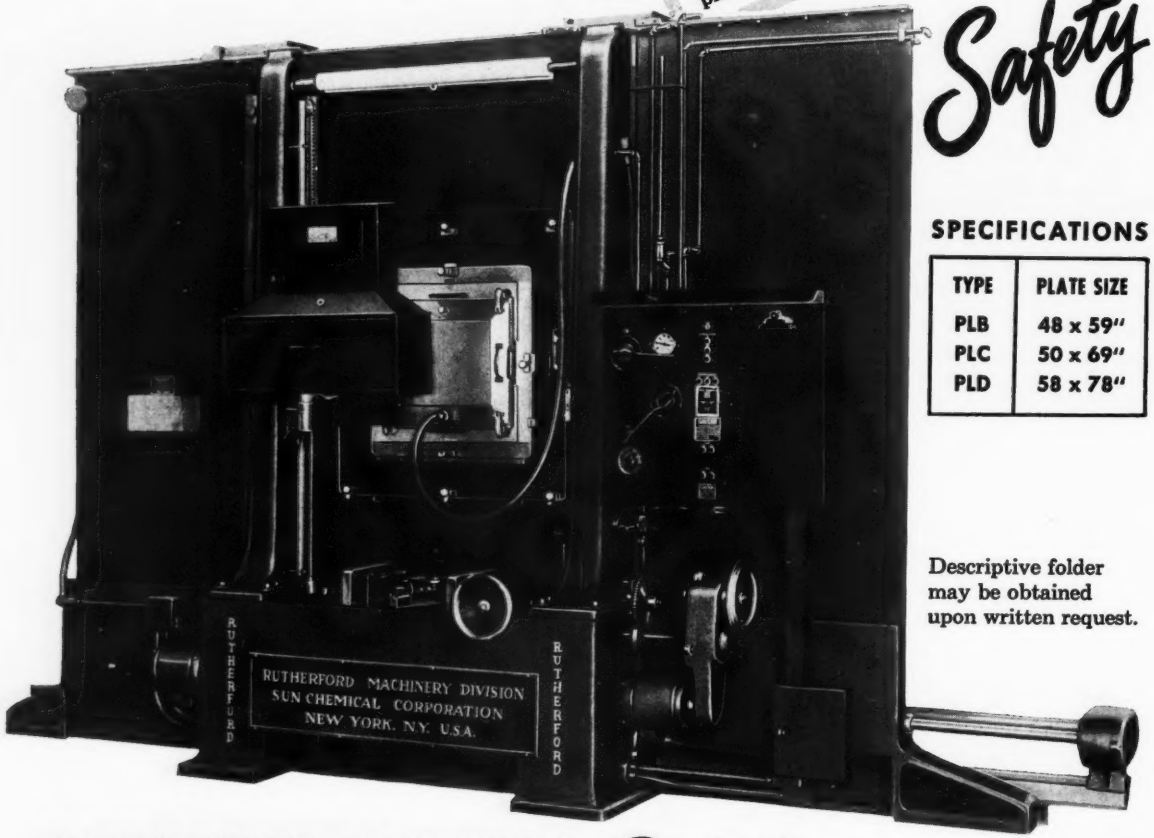
RUTHERFORD'S
PHOTO-COMPOSING
STEP AND REPEAT MACHINE

Fast registration
—is assured by quick-acting quoins with which each light weight holder is equipped.

Micrometer precision
Accurate hair-line register is obtained through use of micrometer dials.

Accessibility
Counter balanced back board lowers to a horizontal position to receive press plate.

PLUS Safety



SPECIFICATIONS

TYPE	PLATE SIZE
PLB	48 x 59"
PLC	50 x 69"
PLD	58 x 78"

Descriptive folder may be obtained upon written request.

RUTHERFORD MACHINERY COMPANY
DIVISION

Sun CHEMICAL CORPORATION

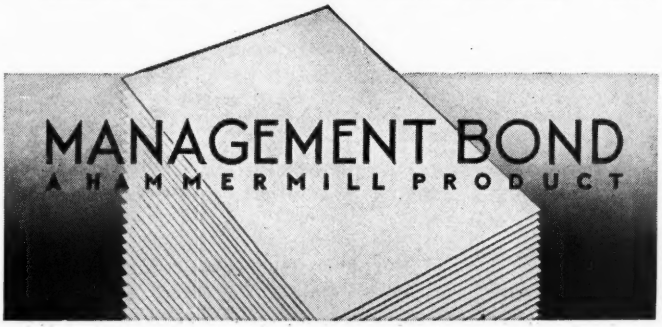
Main Office
10TH STREET and 44TH AVENUE
LONG ISLAND CITY 1, N.Y.
Factory
EAST RUTHERFORD, NEW JERSEY

When a customer wants a job in a hurry, don't take chances with inferior paper. Rely on Management Bond, the watermarked Hammermill product, the paper that reduces press delays to a minimum because it is *uniform*, made for speedy, good-looking jobs.

It is made to give dependable service in your customer's business, too—the kind of service that leads to reorders and satisfied, continuing accounts. Remember . . . *every reorder means another profit.*

Management Bond is available in white or colors, in standard weights and sizes through Hammermill Agents all over the country.

Hammermill Paper Company.
Erie, Pennsylvania.



Send this coupon to your Hammermill Agent
or mail it to Hammermill Paper Company,
1601 East Lake Road, Erie, Pennsylvania.

Please send me—**FREE**—a sample book showing Hammermill's MANAGEMENT BOND.

Name_____

Position_____

(Please attach to, or write on, your *business* letterhead **IP-JUL**

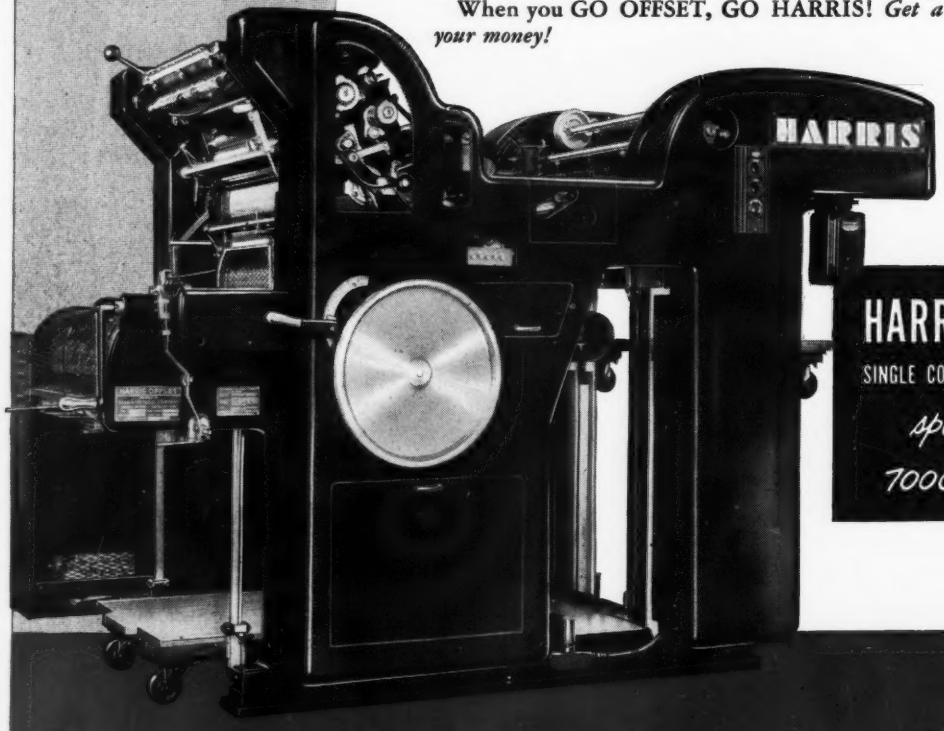
when you "GO OFFSET"

. . GO HARRIS . . be sure you get the best run for your money

SURE YOU'LL GO OFFSET SOME DAY. Probably soon! Last year, owners of offset presses, in combination shops and straight offset shops, collected nearly half a billion dollars for their work! More shop owners bought offset presses . . . the majority of them Harris . . . than any other kind. It's an industry that's growing faster every day. You'll want in!

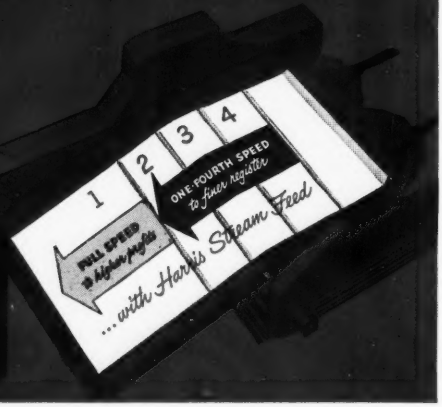
When you do go offset, do as the majority of offset printers have done . . . make your first offset press a Harris. Get *all* the advantages of these Harris features . . . STREAM FEED, MORE ROLLERS, single-point press control, automatic four-way protection, larger feeder capacity, and many others. These are features that mean higher speeds, finer register, smoother inking, faster make-ready, easier operation . . . and larger profits.

When you GO OFFSET, GO HARRIS! *Get a better run for your money!*



HARRIS 17 x 22
SINGLE COLOR OFFSET PRESS
speeds up to 7000 an hour

WITH HARRIS STREAM FEED (illustrated right) there is no bounce, no dented edges. Four full-size sheets are moving down the feed table, ready for their turn at register. The lead edge of the second sheet is only 7½ inches away from the front guides when the first sheet is being taken by the grippers. All following sheets move up to register in this order, allowing more time for register at faster press speeds.



HARRIS-SEYBOLD
General Offices—Cleveland 5, Ohio

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ARE RELIABLE PRESSROOM PERFORMERS

Check these outstanding advantages:

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- **Even tone values, with minimum of ink.**
- **Holds register.**
- **No "dusting".**
- **No cracking in folding.**
- **Solids print with no mottle.**
- **Lot-by-lot uniformity that cuts waste—*improves printing quality.***

THE production of such high-specification papers is made possible by St. Regis' complete control of the tree-to-finished paper process. This is due to the company's extensive timber holdings, pulp mills, and 7 paper mills, with the know-how to produce top merchant grade papers. Precisely the right pulp is available for each type of paper product, and every product is uniformly manufactured under conditions which make possible the finest quality at economy levels. Write to one of the St. Regis Sales Offices listed below for your copies of the demonstrators, swatch book and end-use samples.

The St. Regis line includes enamel book, machine coated, uncoated book, groundwood, mimeograph and specialty papers.

PRINTING, PUBLICATION AND CONVERTING PAPER DIVISION

SALES SUBSIDIARY OF ST. REGIS PAPER COMPANY

ST. REGIS SALES CORPORATION

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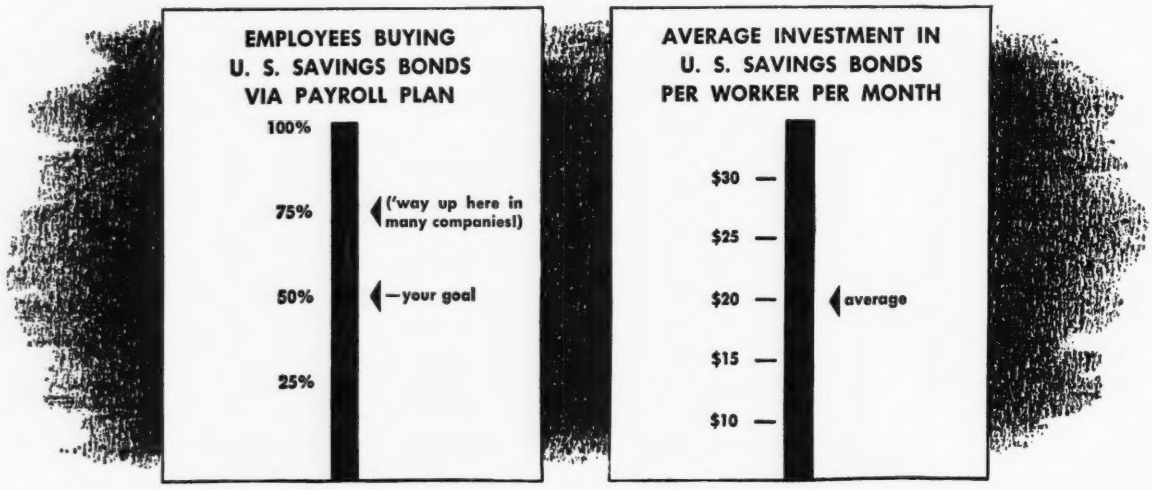
230 N. MICHIGAN AVENUE — CHICAGO 1, ILL.
318 MARTIN BROWN BLDG. — LOUISVILLE 2, KY.

How is YOUR company doing in this "EVERYBODY-BENEFITS" plan?



Compare your employee participation with others who have Payroll Savings

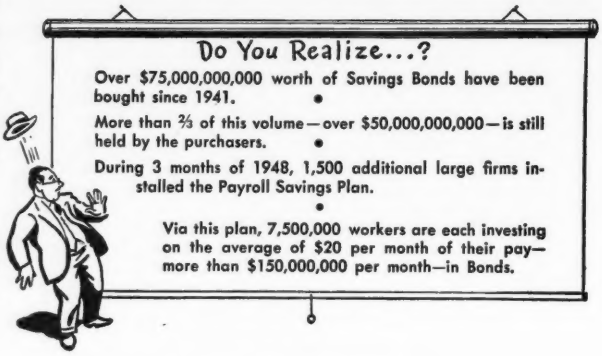
If the figures for your company fall below those shown above, you're missing your share of benefits of the Payroll Savings Plan! These benefits are described below. Nation-wide experience proves that when top management puts the "OK" on the Plan, its benefits rise sharply.

BENEFITS TO *EMPLOYEES:* Every $3 invested in Savings Bonds pay $4 at maturity. Workers gain a 33⅓% return on their money—enabling them in the future to buy more of the things they will want—plus the peace of mind that goes with regular saving.

BENEFITS TO *EMPLOYERS:* The feeling of security that goes with participation in Payroll Savings makes workers more contented. Worrying less, they work better. Among the more than 20,000 large companies with Payroll Savings, records show that—following installation of the Plan—production increased, absenteeism and accidents decreased!

BENEFITS TO THE *NATION:* The Payroll Savings Plan is a powerful deterrent to inflationary forces. Every Savings Bond dollar built up in the Treasury withdraws a dollar from the swollen spending stream. The Plan thus contributes to national security—which affects *your* security!

WHAT CAN YOU DO? If your company has the Payroll Savings Plan, make sure it's being adequately promoted—backed by your top executives—to bring your company its full measure of benefits. If you haven't yet installed the Plan, why pass up its benefits any longer? All the help you need is available from your State Director, Savings Bonds Division, U. S. Treasury Department. He is listed in your telephone book. Call him now!


Do You Realize...?
Over $75,000,000,000 worth of Savings Bonds have been bought since 1941.
More than ⅔ of this volume—over $50,000,000,000—is still held by the purchasers.
During 3 months of 1948, 1,500 additional large firms installed the Payroll Savings Plan.
Via this plan, 7,500,000 workers are each investing on the average of $20 per month of their pay—more than $150,000,000 per month—in Bonds.

The Treasury Department acknowledges with appreciation the publication of this message by

THE INLAND PRINTER

This is an official U. S. Treasury advertisement prepared under the auspices of the Treasury Department and the Advertising Council.

FOR LETTERPRESS OR LITHOGRAPHY

ARIEL COVER

Planning a new catalog, new posters, folders or display cards? Ask your paper merchant to show you samples of Ariel Cover. Note well its brilliance, folding strength and superb printability. See for yourself Ariel's wide range of colors, weights and finishes. Contrast this obvious quality with modest price. No wonder Ariel Cover gives complete satisfaction—*every time.* The Champion Paper and Fibre Company, Hamilton, Ohio.

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KROMEKOTE
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SATIN REFOLD ENAMEL
Meets every requirement for quality publication and advertising printing—thanks to top-grade enamel coating, folding strength and its receptivity to ink.

WEDGWOOD OFFSET
Superior in color, finish, and printability, this paper is unexcelled for fine lithography. It is available in a wide variety of weights, sizes and special finishes.

SPECIALTY PAPERS
Champion's specialties include coffee bag, drawing papers, gift wrap, end leaf, food container stock, red patch stock, stencil board and pattern board.

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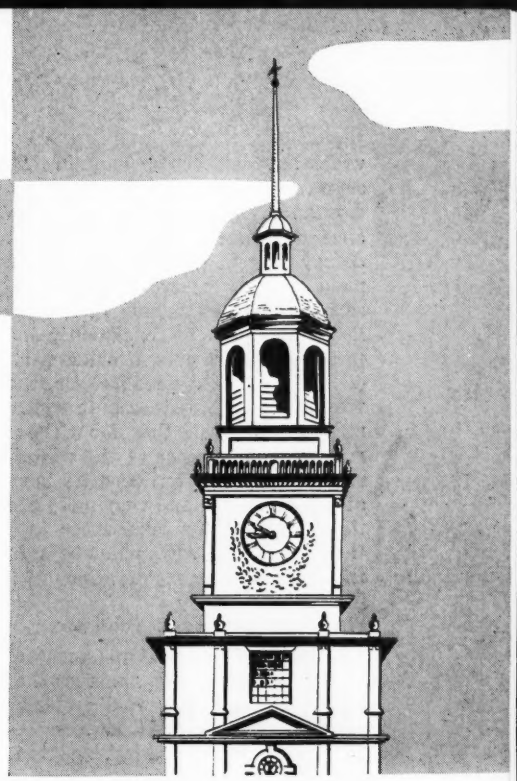
Have you
something to do
tomorrow?
Do it today!
—Benjamin Franklin

MACLEAN-HUNTER PUBLISHING CORPORATION

The Inland Printer

Leading Business and Technical Journal in the Printing and Allied Industries

J. L. FRAZIER, Editor JULY, 1949



Printer, Client Must Work Together to Hold the Cost on Publications Down

By OLIN E. FREEDMAN

● THE PRODUCTION of business papers, trade journals, and the organs of large associations and groups represents, in the aggregate, a substantial portion of the volume of the letterpress division of the graphic arts. The thousands of publications which fall within this category all have many elements of similarity.

Those are the magazines which are published upon fixed, definite schedules; which derive a large part of their income from advertising, much of which is furnished to them in the form of mounted photoengravings or electrotypes, necessitating printing by the letterpress process; which must usually conform to recognized physical specifications (type-page size, trim size, paper stock best adapted to certain halftone screens) in order that advertisers' plates may be used interchangeably for insertion in several different magazines; and whose editions are of such length that they are the most economically run from forms consisting of original type and mounted plates. In general, the publisher of each depends upon one printer for all operations from composition through binding and mailing, and the frequency of contact and closeness of working relationship with the printer are greater for such a publisher and his staff than is customary with most other buyers of printing.

In general, the publishers within this group have found it to be more advantageous to purchase all of their mechanical production, rather than to establish and operate their own plants. This statement applies even to certain owners of dozens or scores of business papers, who understand how the normal competition within the printing industry operates to give them the advantages of technological progress the most quickly and economically. In addition, they usually find that when their requirements are temporarily expanded (as for special issues), there is no undue difficulty for their printers in that extra load.

Advantages and Disadvantages

Many printers, most of them with establishments of (relatively) medium or medium-large size, have discovered excellent opportunities in filling the needs of this class of publishers. Some devote only limited portions of their capacity to such work, while others specialize on it to almost the exclusion of other types. All of these printers recognize well-defined advantages in contracts which assure specific volume at fixed intervals throughout the year, and in the ability to plan ahead not only on the basis of total interlocking demands but also with knowledge of the projected distribution of the work among the various departments of their plants.

A review of the history of publication production over the last twenty to thirty years indicates, however, that this field is not necessarily an exceptionally attractive one. Many printing establishments which had once gained nationwide recognition therein have now disappeared entirely, frequently through involuntary liquidation. Others that were formerly prominent for the number of trade publications they produced have set their courses in other directions and have either reduced the proportionate amount of such work in their plants or eliminated magazine publication altogether.

There are several reasons for this rather dark record. One lies in the enticement of assured volume, resulting in the quoting of prices so low as to be unprofitable at even the highest levels of productivity, or inadequate to provide sufficient funds to cover normal obsolescence of plant and equipment. Another is to be found in the constant pressure on printers' prices exerted by publishers, whose income is restricted by the rates obtainable from advertisers and subscribers within their respective fields, most of which are of specialized and consequently limited scope. And there is a distinct hazard in relying upon a too small number of individual sources for the total volume of a plant, leading to unwise extension of credit when a customer's financial structure may weaken, or to business failure if too many contracts are terminated within such a short period that work to replace them is not obtainable before plant income has sagged to dangerously low levels.

Virtually all printers who are, today, producing publications of the class with which this article deals are keenly aware of the dangers

Copyright 1949, Maclean-Hunter Publishing Corporation

which have befallen so many in that segment of the industry. They understand the importance of assurance of income adequate not only to defray current expenses but also to make possible reserves for modernization, thereby assuring their publisher-customers of consistently low production costs over extended periods of years. They realize, too, the folly of heavy investments in equipment and the space therefor without reasonable assurance of the volume required to keep that capacity busy at proper levels; and they maintain their relationships and enter into their contracts with publishers in the light of that consideration.

Responsibilities of Publisher

Successful publication printers fully appreciate, also, the fact that publishers have very real problems in maintaining correct balances between income and outlay, and that they, the printers, must assume a certain responsibility in helping to meet and solve those problems, since the payment of their bills by the publishers is contingent upon the latter's ability to maintain revenue from satisfied advertisers and interested, loyal subscribers. Constantly aware of this mutuality of interests and of basic sources of income, they consider themselves, to a large degree, as being essentially the manufacturing divisions of the publishers' enterprises, the success of which depends upon efficient production, freedom from errors, maintenance of correct levels of quality, and strict observance of mailing dates without requiring that forms be closed so long in advance as to restrict sales of advertising space or to necessitate too great delays from the writing to publication of news.

In these endeavors, the printer may justifiably look to the publisher for the fullest support. Unfortunately, the sharp competition for publication printing which prevailed throughout the most of the twenties and the thirties led too many printers to tolerate unsound practices on the part of publishers, resulting in increased production costs which printers would attempt to absorb rather than risk offending a client by a corrective effort. Today, with costs in this field approximately double those of ten years ago despite certain improvements in equipment and methods, the printer may well call upon the publisher to make a point of understanding the problems involved and—for his own sake—to exert himself to assist the printer in controlling and reducing costs.

It is incumbent upon every publisher to understand that there are three fundamental means of working successfully toward the aforementioned objective: 1. The adoption of different, less expensive methods; 2. Employment of the same methods, but with the various operations completed within noticeably less time.

Insofar as different and less expensive methods are concerned, relatively little can usually be done. The form in which so much advertising is furnished almost always precludes the use of other processes, such as offset and gravure, for more than occasional inserts or special sections. Recognized standards of quality demanded by advertisers and expected by readers practically serve to rule out the substitution for type composition of engraved typewriting with pasted-up heads and display, nor do present costs of photoengravings permit much cutting of costs if that method is employed. In some instances, however, handling of work in smaller forms on higher-speed presses and folding machines has effected some economies, especially when additional colors would be required on only occasional pages. Saddle stitching is being abandoned by many publishers in favor of side binding (wire stitched or "patent," with cover glued on). This makes

Both benefit when printer and publisher work together. (Illustration courtesy of Inland Press.)

possible the use of added color on scattered pages without the necessity of running that color in so many forms, since the forms in which it is concentrated can be cut down and gathered in smaller signatures.

Although the control of hour costs is too often regarded as a responsibility solely of the printer, the actual fact is that a publisher who will sincerely interest himself in his printer's problems can do several things which will result in favorable costs. In labor negotiations, he can supply data not directly available to the printer, showing the uneconomic and dangerous effects of cost increases and the reduced volume and employment which may be expected as a result. He can work closely with the printer in planning schedules which will obviate nonproductive time or overtime, both costly, for the former must find its way back into the cost of all productive time, while the latter is a direct increase that must be recovered.

In many ways, the publisher can limit his requirements for services that result in indirect costs which must be recaptured through direct hour costs. Among these are such matters as unnecessarily frequent messenger service, delay in furnishing the instructions for breaking up standing forms after runs are off, avoidable heavy demands for storage of type and plates, exceptionally large accumulations of paper stock to be stored by the printer until needed, scheduling of deliveries entailing excessive cartage in small lots—in short, all those secondary extras that are not listed as separate items on invoices, but of which he, ultimately, must bear the cost.

In establishing conditions which will make possible the efficient completion of work within minimum time, a publisher can profitably accept responsibility for certain standards which he alone is in a position to enforce. Foremost among these is the supplying of carefully prepared copy, legibly typed, clearly edited, marked up for immediate comprehension and accompanied by layouts when necessary for clarity, thereby enabling compositors and typesetting-machine operators to proceed with assurance at maximum levels of efficiency. More time can be devoted to typesetting rather than to magazine and machine changes if the publisher will accumulate larger "takes" of copy to be set in the same size and face and, as far as possible, the same measure. Careful, final editing of original copy rather than changes in proofs will reduce the extent of authors' alterations, which are expensive *per se*, and which, in addition psychologically reduce efficiency and accuracy when operators have reason to expect that proofs will be heavily marked up and first settings must be largely done over.

For page makeup, accurate dummies, prepared from final proofs after completion of all corrections and alterations, result in substantial saving of time. Enforcement of correct standards for furnished plates and stock will reduce the production time in all departments and will raise levels of quality as well. Standardization of colors, when practicable, will shorten or eliminate time required for color-matching and will minimize the likelihood of offsetting, smudging, and slow drying.

During the recent period of rising costs, the extent to which publishers can benefit themselves through assistance in controlling printers' costs has gained increasingly wide recognition. Many have taken such action voluntarily when its effectiveness has been pointed out. Certain printers, recognizing the importance of such support by their publisher-customers as well as the inequities inherent in permitting a portion of their customers to create indirect costs which would adversely affect the direct rates charged to all, have set forth numerous requirements which, when observed, result in price advantages for those conforming to them; or they have established specific separate charges for costly practices as supplying poor copy and dummies, short "takes" and substandard cuts and stock, or the making of excessive demands for messenger and trucking service, for the unduly extensive storage of forms, type, cuts, and paper, or for exceptional production capacity upon insufficient advance notice. It is believed that such requirements may well become a basis for recognized trade customs applying to this class of printing, to the benefit of both printers and publishers.

DON'T LET RUST RUIN YOUR IDLE EQUIPMENT

● CORROSION of equipment and fixtures in the printing plant must be guarded against not only while that equipment is in use but also when it is idled by plant breakdowns or slack periods or when in storage.

Rust can quickly destroy the value and utility of equipment. Ordinary lubricants protect most equipment while in motion against rust. Units in storage are readily subject unless specially packed or protected with lubricants designed to prevent rust from moisture in the air.

Any such lubricant chosen for that purpose must contain chemicals to protect the equipment surface against both oxygen and moisture and against any corrosive liquids that may be used in production. Ordinary oils and greases are of value as protective coatings in rust prevention, but they are not entirely successful; special lubricants designed for just this purpose should be the ones used. A lubricant should have sufficient body so that a thick film can be maintained yet should be thin enough to be readily removable with kerosene or some such solvent.

On engines it is wisest to drain all regular oil before storage and refill the crank case with preservative oil while the engine is still warm, then run for fifteen to eighteen minutes at idling speed. A new oil filter should always be used.

Spare ball and roller bearings, stocked for replacement, should be given closest attention. A rust-inhibiting grease with high resistance to oxidation should be used on stored bearings. These lubricants should be of a type easy to remove when the bearing is installed for use.

It is wise to do a good job of cleaning surfaces of all equipment before any rust preventive solution is applied, no matter what the unit or tool may be, and to make sure that the lubricant chosen is the best obtainable for that purpose.

Equipment manufacturers provide such information with their units, but when this has been lost it can be obtained by a letter to the engineering department of the firm involved. Such procedure is good insurance.

Rust preventives can be applied by spraying, brushing, or dipping. Heat should be avoided because of fire hazard. If a spray is used, make certain that clean dry air is supplied to the spray nozzle.

Advance Planning Increases Efficiency and Cuts Costs

By DAVID MARKSTEIN

● "LET'S SEE," said the art director, "suppose I figure on doing this label in three colors—red, yellow, and black. I think it would look very handsome. What size do you have in mind?"

"I'm not sure," said the plant foreman, "exactly what size would be best. We could run the labels on the Miehle, but that's busy with another job today and tomorrow, and you say the customer needs them by next week. We'd have to put them on the press as soon as we got the plates. What do you think, Harold?"

"I think we can do it on the big Miehle," said Harold Cornay, partner in the Press of H. N. Cornay. "We can still deliver it to the customer when he wants it. Your design looks good. Now, as to the size paper we'll run this job on . . ."

That conversation is typical of the planning conferences that occur regularly at the new Cornay plant on North Hagan avenue in New Orleans. Whenever a job comes in, Harold Cornay, the plant's art director, and the shop foreman sit down to confer. "We iron out any wrinkles before they come up," says Mr. Cornay. "We have found that planning every step of a job pays off in smooth efficiency, and in high quality work."

The Cornays used a scale model to plot efficient flow of production before building this new plant

Harold Cornay and his father, E. N. Cornay, who is also his partner, do not believe in restricting advance planning to smoothing the production path of their label and advertising jobs alone. When they laid plans to build one of the most modern and efficient plants in Louisiana after the war, they wanted to be sure everything was placed in the spot where it could work best, that there was a smooth flow plan, and that the building itself was designed for the best work at the lowest possible cost.

"So," remarks Harold Cornay, "we took the natural first step of consulting with architects for plans. But that was only the beginning. We wanted to be sure the physical setup would be the most efficient possible for the kind of printing we do.

"Our specialties are labels and direct-mail advertising. We require top-quality work. We wanted to be sure the layout of the plant would make it possible for us to produce the best quality at the lowest cost, although, with both my father and myself, the quality takes precedence over the low cost whenever there is conflict between the two.

"So, after the architects had submitted their blueprints and perspective drawings, we had a scale model of the plant constructed. This scale model helped a lot. It not only gave a graphic idea of what was what, but it allowed us to decide on placement of the presses and fixtures where everything would flow smoothly from beginning to end. We think we have such a plant now."

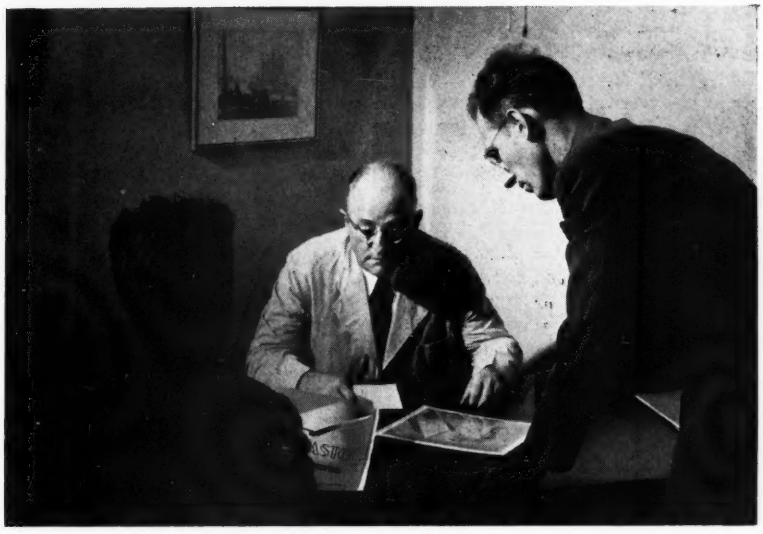
The Press of H. N. Cornay occupies a brick building designed and built especially for it, not a building that was redesigned haphazardly to fit a printing plant. There are 9300 square feet of floor space. "It's not the biggest printing plant in the world," says Harold Cornay, "but it is one of the most efficient, we think, and certainly it is well suited to the label and brochure work we handle."

The equipment includes a 41-inch Miehle two-color press; short run vertical telepresses; Seybold autospacer for cutting and trimming the labels that are a Cornay specialty; PMC die-cutting machines for producing small labels; and the other routine equipment.

"There are no linotypes, however," explains Mr. Cornay. "In the kind of work we do a great portion

of the type would be hand-set anyway. When we need linotyping we buy it from a trade shop here in New Orleans."

Fluorescent lighting is featured throughout the Cornay plant. "If a man can see clearly, without having to squint or try hard, he will make fewer mistakes, and he will do better work, and do it faster," explains Mr. Cornay. "In planning a new printing plant, good lighting spotted at the points where it will be most needed is a very important factor." In addition to fluorescent tubes, the plant gets plenty of daylight, too. Glass bricks were used in the walls to let in the light, while effectively keeping out the glare of southern sunlight.



At the Cornay Press, every job is planned. Here, above, E. N. Cornay (center) confers on costs with E. J. Kennedy, office manager (left), and Ted Drell, art director (right). At left, Harold Cornay sits at the little proof press with which the company started in business, now kept as a souvenir

The conferences have worked out some notable ideas. Among them, as Mr. Cornay says, "we've developed a way to work with unmounted dead metal copper halftones. The type is either sweated in or molded on the form with the unmounted halftone. That's one way conferences cut costs without impairing quality here at the Press of H. N. Cornay.

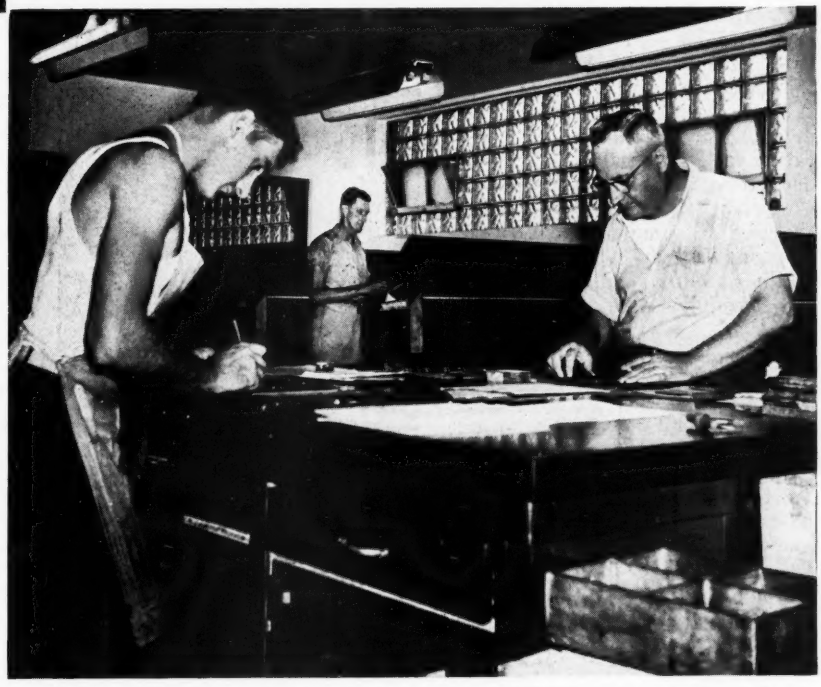
"Labels, of course, are usually the lithographer's meat. The fact that we not only can compete with offset shops, but can get jobs and turn out top quality at competitive prices is another result of our regular job conferences. We iron out the kinks and the troubles in advance. Then they never crop up to mar efficiency and increase costs when a job is being run."

It was during the dark days of the depression that the Press opened for business—literally *the* press, for its equipment consisted only of a single proof press. Now the outstanding work of the Press is known throughout the South.

For efficient paper-handling they buy all paper on skids. "We buy two carloads of paper a month," Harold Cornay says. "Handling that paper could eat up a lot of time that costs important money. So we use skids to reduce handling expense."

The Press of H. N. Cornay has its own art department, headed by Ted Drell, who formerly operated his own free-lance art service for New Orleans advertisers. Ted Drell sits in on all job conferences with Harold Cornay and the shop foreman. "If the art staff, the plant, and the boss plan *together*," Mr. Cornay stated, "there will be no snags or troubles while the job is going through the customary process of production."

Drell's art department specializes in the design of labels, catalogs, brochures, and other kinds of high-class advertising.



Plenty of fluorescent light is supplied throughout the plant, and daylight filters through glass brick walls

DOES YOUR PRINTING PLANT REALIZE ITS ENTIRE POSSIBILITIES OF PROFIT?

Production control will pay off in dollars and cents and peace of mind. Read about a system that brings results!

By DONALD L. BOYD

● REGARDLESS of the size of the printing establishment, some method of job scheduling or "production control" is necessary if full profit possibilities are to be realized.

The generally conceded function of a production control system is to permit the setting of delivery schedules which can be met and at the same time to obtain the most efficient use of available man and machine hours.

In the smaller operations the control frequently consists of an alert superintendent with a prodigious memory, a pocketful of notes, and an intimate knowledge of the customers' needs and buying habits. He must also be an around-the-clock worker with the ability to obtain full co-operation from his men.

At best there is a limit to what one man can accomplish in twenty-four hours. When the size of the operation expands beyond the point where one man can completely control the production function, some control system must be employed.

However, systems never *run* anything. What the system actually does is provide a means for the coordination of the work of several men, each of whom has at least a part of the attributes and qualifications necessary for the complete job.

Management of a growing business should be able to recognize rather easily when a system of production control becomes necessary. Consistent failure to meet promises, excessive overtime, unbalanced work loads, and spoiled work are a few of the signs that indicate the need for something more than one-man direction.

Need for New Methods

In our own case we recognized the need several years before we did anything much about it. Temporary measures relieved the growing pains for the time being but constituted no cure. Wartime shortages of men and material brought it home that we had outgrown the old methods and needed new ones.

A thorough study of several dozen systems used in the industry confirmed our belief that no single system could be applied to every printing plant. The thing that worked beautifully one place could be a flat failure in another. Differences in process, type of equipment, size of establishment, nature of market, and type of product were a few of the variable factors that had a bearing. All combined to make a universal system a virtual impossibility.

How tight should the control be? How far could we go until costs of operating the control exceeded savings that could be expected? These were two fine points. It's very easy to become slaves to a system and more than one business concern has found that a procedure designed to promote "efficiency" can defeat the purpose for which it was created.

Obviously, a production control designed for a plant doing a general commercial line of work would be different from the one for a greeting card manufacturer or a periodical printer or a book printer. It soon became quite apparent that we must tailor something especially to meet the needs of Standard Printing & Publishing Company.

Manufacturing end of our business is departmentalized by process: letterpress, offset, steel die engraving, and spot carbon. Each of these has the usual subdivisions, composing and press, camera, plate and offset press, and so on.

A rather large part of our work is done by a combination of two or more processes. The size of the job may vary from one hundred steel-engraved business cards to jobs involving all processes and requiring from 2,000 to 3,000 hours of bindery hand time.

To complicate matters further, a big portion of our work is done for the trade. Printer-customer using our services expects us to help him meet delivery requirements by giving him promises on which he can absolutely depend. All in all, we faced a rather involved problem.

Donald L. Boyd, vice president of Standard Printing and Publishing Co., Huntington, West Virginia, is also past president of Printing Industry of America, now on executive committee

The Human Element

We made several false starts in which we failed to recognize the importance of the human element in the establishment and operation of such a system. *Systems are no better than the men who operate them.* A comparatively poor system can be made to work quite effectively by a group of men who understand its purposes and are earnestly concerned with making it work; an ideal system can be a complete failure if the men who operate it are not sold on its need or if they do not understand its underlying purposes. After this fundamental and rather obvious fact seeped through we began to make progress.

Our supervisory group is made up of the general superintendent and four department heads. The youngest of these men has more than twenty-two years in the business, the oldest more than fifty. Together with the estimator and the accountant, these men for several years had held periodic conferences on production. They were conditioned in co-operation and in the habit of

plant-wise rather than *department*-wise thinking. It seemed logical to give them the problem.

A study was made of all existing systems available and there ensued three months of meetings, at least one each week, and each session from two to three hours long. Suggestions for solution of the several parts of the problem were carefully prepared and written out. Every meeting ended on a note of hopefulness. One by one, difficulties were hurdled. The forms and procedures were drafted. Every point evolved slowly but with a full understanding on the part of each one as to his part in the scheme. This "thinking through" was arduous but invaluable.

Putting the thing into effect required an almost overnight inventory of all time in process by production centers in order that work loads could be accurately determined. This job was taken over by these same men, who accurately inventoried some 25,000 hours of time already expended on more than seven hundred jobs, and made estimates of time yet to be expended on those same jobs—all done between Friday noon and Sunday midnight. All was ready to go on Monday morning.

The mechanics of our system are centered in the control room. The control room is in charge of the production superintendent. It is his responsibility to answer customer's questions on status of jobs, schedule various parts of the work to the several departments, set a specific delivery date for every job, correlate work of the various department heads so as to permit rescheduling when necessary, expedite material flow, authorize overtime, and in short, perform all the functions of a traffic director.

Authority With Responsibility

Such broad responsibilities require broad authority. The production superintendent is the only person authorized to set specific delivery dates. The salesman, general superintendent, general manager—not even the president of the company can make a definite delivery promise without first going into consultation with him.

To enable the production superintendent to perform his functions adequately, there must be in the control room at all times a record of every job in process showing the progress through each stage of production from the time it is received until it is completed and shipped. This concentration of information is

CONTROL CARD MASTER

CUSTOMER .....

JOB .....

CUSTOMER ORDER NO. .....

JOB Nº 73701

DELIVERY DATE

STOCK FURN. ☐ STOCK REQ. ☐ STOCK IN ☐ STOCK ORDERED ☐

From..... Ord. No..... Date.....

OPERATION	EST. HRS.	IN	OUT	OPERATION	EST. HRS.	IN	OUT

BINDERY STUB

OP. NO.	TIME	OP. NO.	TIME	DUE IN / DUE OUT

From..... Nº 73701

COMP

OP. NO.	TIME	OP. NO.	TIME	DUE IN

From..... Nº

The daily reports of a job's progress are made and recorded through this master ticket and stubs

accomplished through a procedure which involves the estimator, the order desk, the purchasing agent, inventory clerk, and the several department desks.

At the order desk the job jacket and charge sheet are written with full instructions covering specifications. In addition, the heading of the control card is filled in. This card is 5 by 16 inches in size and perforated to provide a section 3 by 5 inches known as the *master*, and seven sections 5 by 1⅞ called *department stubs*. All eight parts are prenumbered to correspond to the job jacket.

The order clerk fills in on the master section only the name of customer, order number, and a brief description of the work. Where a delivery date is required, an acknowledgment card is also filled in with address, order number, and description of job. Space provided for delivery date is left blank to be filled in when the control room determines the date.

The job jacket, charge sheet, acknowledgement card, and control card are forwarded to the estimator. Where there is a quotation outstanding, an estimate sheet is attached to the other material.

The estimator completes the control card by first filling in on the master section the detail of the time estimate and designates the machine or method upon which the estimate was based. He then enters on the several department stubs the time required for each operation in that particular department. If no estimate blank accompanies the order the time is estimated at this point.

Requisitioning Stock

The estimator then makes his stock requisition in duplicate and refers to the perpetual inventory to see that the required item is on hand. If available, the requisition and master cards are so checked. If the stock must be ordered that fact is indicated. The original of the stock requisition goes into the job jacket and if the stock is on hand the duplicate goes to the inventory desk. If stock must be ordered the duplicate goes to purchasing where provision is made for its procurement.

This small section of inventory and purchasing procedure is included here only to show that the master section of the control card has on it at this point all information necessary for control room use.

The job jacket, charge sheet, acknowledgment card, and control card then go to the general superintendent's desk. Here they are checked for discrepancies and missing information. A stenographer types a shipping sheet which carries full shipping instructions and makes the necessary labels, express receipt, and bill of lading. These shipping papers are forwarded to the shipping department and the charge sheet with estimate attached is filed alphabetically near the telephone operator and available to the order desk. The job jacket, acknowledgment card, and control card then go to the control room.

This may seem an involved procedure but experience has proved that it is well worth the effort and that attention to detail in the planning stage eliminates time-consuming delay when production actually begins. We know where materials are, pre-estimates of required time are made, acknowledgment to the customer has been provided for, inventory is properly charged, shipping instructions are complete, and all of these details have had at least one recheck. The control room now has a complete docket including all important details.

The control room is just what the name implies. Here is centered the direction of the job as it goes into production, and here is kept a continual record of where that job is at every stage of its progress.

From a time inventory the production superintendent knows available capacity within a given number of days, weeks, or months and the amount of that time already allocated or sold. This inventory is kept on a large blackboard vertically ruled to provide space for eighteen weeks of seven days, and horizontally ruled to care for twenty-four production centers. The resulting boxes provide space in which is recorded the number of scheduled hours for a particular center for a given day. This inventory is kept current by revision approximately every three hours and provides a correct picture of the work load.

From this time inventory the production superintendent can tell his available capacity within very few hours in any department. He knows, for instance, that if ruling shows 200 hours booked and he has a weekly capacity of eighty hours of ruling time, he cannot promise a ruled job in less than two and one-half weeks. It makes no difference if the composing room and the pressroom have capacity to put it through in three hours.

Scheduling the delivery date is determined by the available capacity of the department which has the heaviest work load. Here the judgment of the production superintendent comes into play. If machine composition is low and a job is offered which requires a considerable amount of machine composition but conflicts with the cylinder press schedule which is filled beyond the required delivery date, he tries first to reschedule the presswork to accommodate the desirable job. If this cannot be done he authorizes overtime in the pressroom.

Every printing company has its good accounts whose requirements must be taken care of "come hell or high water." Frequently these most valued customers are the very ones who have been "spoiled" to the point where they habitually place a job today and expect it tomorrow. These are the problem children of any

Time inventory of each production center is debited on control board with charges called off from the department stubs of the jobs entering production; credited as stubs return from "out" board

effort to systematically control production in a printing plant.

To provide for these genuine and imagined contingencies we allow a "cushion" in our scheduling procedure which amounts to approximately 20 per cent of rated capacity. A production center with eighty hours' capacity will be scheduled only to sixty-four. If no "quick" work appears to take up this allowance the work scheduled for the succeeding day is moved forward and if the condition continues for several days, there appears a blank space for scheduling additional work.

From the time inventory, the production superintendent is able to determine the "date in" and "date out" of each production center. These dates are entered on the appropriate department stubs and notation made on the master card. The composite enables him to set the definite time of delivery. This is entered in prominent figures on the master and filled in on the acknowledgment card which is mailed to the customer.

The department where the work begins is indicated and the department stubs are separated from the master card. (The stubs which have no time entries are discarded.) The master card is filed on the production superintendent's desk, and the department stubs are distributed to their respective departments. The job jacket goes to the department where the first operation takes place, called the originating department.

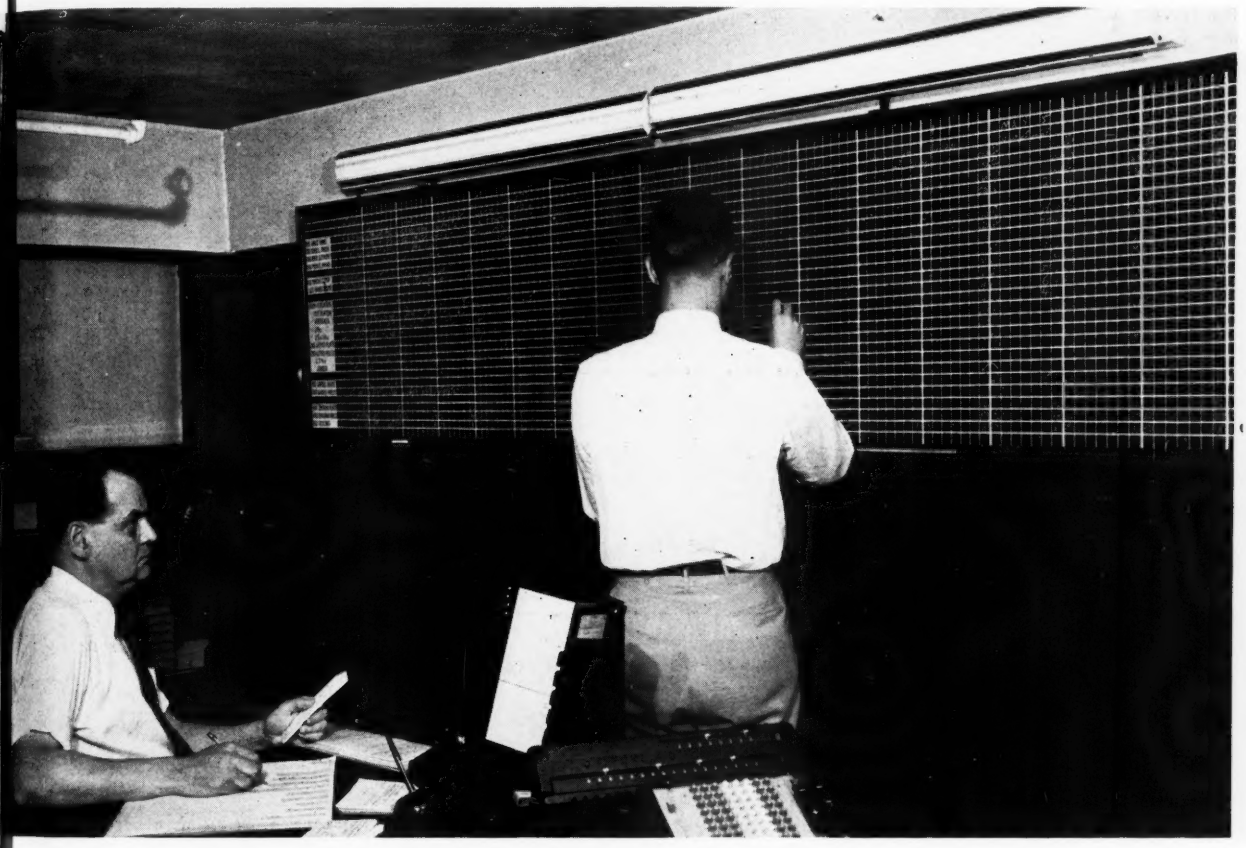
At the desk of each department head there is an "in" and an "out" board consisting of dated pockets to accommodate the department stubs. These boards are constructed to provide for visible sorting by days on a four-month basis both "in" and "out," or a total of eight rows of pockets to accommodate thirty-one days each and an extra pocket (32) to provide "pick-up."

Each department head files the stubs which comes to him on the "in" board according to the date the work is due in his department. In the case of the originating department the stub is filed on the "out" board.

On arrival of the job in a given department the stub is moved from the "in" to the "out" section according to the due-out date shown. On completion of the work in that department, stub is moved to pocket 32 for pick-up by the control.

Three times each day the control room picks up the stubs in pocket 32 from each department board. From these, the operations completed are checked off on the master card in the control room and the hours involved are credited to the proper production center on the big board. This provides a complete record of the progress of the individual job on the master card and furnishes an account to the time inventory for expended time.

There are several advantages in the complete visibility of these department boards. Chief of these is that the department supervisor can tell by a glance at the "in" board how many jobs are scheduled to arrive in his department on a given day and the departments from which they will arrive. As they come to him the stubs are moved to the "out" board. Any stubs left over on the "in" board at the end of the day serve as a notice that those jobs are held up somewhere. There is an immediate check with the supervisor in the offending department to find out the reason the jobs have not been completed.



A department superintendent transfers stubs from "in" to "out" board on a batch of job jackets just received. His visible record of what has happened and what is expected of him is complete

If serious trouble has developed, the control room is notified and steps taken immediately to get the tardy jobs moving. Generally it is just a temporary delay or something that can be remedied by some overtime, though occasionally the job must be rescheduled.

room ahead of schedule. These are handled on that day provided there is time after the scheduled work has been shipped.

To avoid daily review of all master cards to keep track of current promises the production superintendent maintains on his desk a running

Huntington, W. Va.,.....19.....

Gentlemen:

Thank you for your Order No..... dated.....

for .....

.....

.....

This order is scheduled for shipment about.....

If you have reason to refer to this order please mention No.....

Again thanking you and soliciting a continuance of your patronage we are,

Very truly yours,

STANDARD PRINTING & PUBLISHING CO.

By.....

Acknowledgment and thank-you card tells customer when to expect finished work

Attention Please

HEREWITH IS PROOF OF YOUR JOB NOW IN PRODUCTION IN OUR PLANT. THIS JOB IS SCHEDULED FOR DELIVERY ON

.....

If

YOU RETURN PROOF TO US ON OR BEFORE

.....

IF THE PROOF IS NOT BACK IN OUR HANDS BY THE ABOVE DATE THE DELIVERY PROMISE CANNOT BE MET AND THE JOB WILL BE RE-SCHEDULED AFTER RETURN OF PROOF.

STANDARD PRINTING & PUBLISHING CO.

By.....

Notice attached to proof calls customer's attention to his part in getting job done on time

production, the job number is entered under the promised delivery date. As the completed job comes back, these numbers are stricken out.

Any overhung job must have a symbol to indicate why it has not been completed according to schedule. PO means proof out and indicates that the customer has not returned proof within time specified to keep the job on schedule; SO means that paper or other material did not arrive as promised by the supplier. There are half a dozen other symbols.

Huntington, W. Va.,.....19.....

Gentlemen:

We have not received the proof on your Job No..... which was sent you on.....

This job is now off our delivery schedule and cannot be re-scheduled until proof is returned.

Very truly yours,

STANDARD PRINTI

By.....

Customer is notified some time ahead if delivery of his order cannot be made as scheduled

Huntington, W. Va.,.....19.....

Gentlemen:

Due to circumstances beyond our control we will be unable to meet the scheduled delivery date on your order..... promised.....

.....

.....

The new date scheduled for delivery is.....

Trusting this does not inconvenience you we are,

Very truly yours,

STANDARD PRINTING & PUBLISHING CO.

By.....

This follow-up card (on colored stock) is sent out when proof is not returned promptly

There is no board used in the shipping department but the shipping sheets serve to keep things moving on schedule. The sheets for all jobs scheduled out on a given day are pulled from the alphabetical file and stacked in one tray. As the jobs arrive in the shipping room they are packed and moved to mail, express, or freight platforms. By midafternoon the shipper checks with the finishing department on all jobs which have not come to him. If it is found that a job cannot be completed, effort is made to ship at least part of it.

In the course of almost any day, several jobs arrive in the shipping

record called the *day sheet*. This is an ordinary ruled columnar pad with successive dates filled in on the heading. As each order passes through the control room on its way into

The day sheet comes very near being the heart of the control system. It is the device through which production superintendent checks his results. It's a happy day when

every job number in the column has a red pencil line through it.

Through the system we are able to deliver more than 95 per cent of our jobs on or ahead of the scheduled delivery date. No longer do we have jobs that get "lost."

We are able to give a customer immediate and accurate information on the status of his work. There are no more frantic telephone calls to department desks trying to locate the work; no more frenzied figuring and hurried consultation as to when it can be shoved through. Now the telephone operator refers to the charge sheet file at her elbow, relays the order number to the control room, and from the master card the control room can give immediately the promised delivery date, the department in which the job is located, and tell if it is on schedule.

We are getting more uniform pricing. Every job is pre-estimated and the "open" job gets the same planning as the "quoted" job.

We are able to make more efficient use of our overtime. All overtime is worked with a specific purpose—not just because a department is loaded. Frequently in the past we have worked our bindery overtime for many hours only to find we had worked on the wrong jobs.

There has been uniformly better departmental performance. Workmen themselves don't like to see those yellow tabs sticking out of the pocket that should have been emptied day before yesterday.

The salesmen can spend more time selling. It's no longer necessary for them to run down jobs or be expediters of their customers' work.

Room for Improvement

The system is not perfect. There are some difficulties experienced.

When a customer holds proof beyond a reasonable specified time it may mean some extensive change in scheduling and sometimes this means all the way through pressroom and bindery.

The house publication, normally thirty-two pages and 7,500 copies one month, may be increased to 48 pages and 10,000 copies. Periodical publication work is scheduled three months in advance and a contingency such as described above can be a continuing headache if the additional work required uses up the "cushion" and any great amount of overtime.

However, when we compare our situation today with what it was before we installed production control, we are well pleased.

HOW TO MAKE A PROFIT AND END FIGURE-FOOLISHNESS

BY A. C. KIECHLIN

● THE PRINTER who is slightly pink on profit or who goes Russian—in the red, that is—may have plenty of gray matter above his neck. He may even take a shot at Plato and Freud occasionally. He doesn't shortchange himself on profit because he is a bit on the sadistic side and gets a kick out of losing his own money. He's just figure-foolish.

Can't he count? Sure he can count. Then why does he figure a job short on profit? After all these years, one would think that every printer would know how to figure a job profitably. Printing isn't a newcomer to market, like television. It seems to us that the answer to this puzzle lies in the involved formula the printer feels he must use to figure prices.

In our opinion, based upon considerable experience with the costing practices of printers, many use a complicated formula for calculating profit on jobs when it can be made as easy as soap slipping off the edge of a bathtub. Of course, we refer only to the formula for estimating a job and arriving at a profitable selling price after the time and materials have been computed. This formula, because it must allow for overhead and net profit, is the stumbling block to most printers.

The first step is to refer to your profit and loss statements covering a prior period or periods. Do not go back more than three months for the figures. Costs are changing so rapidly today that you can't depend upon last year's figures as a safe basis for costing current jobs. If you don't know how to make up a profit and loss statement, it is time you learned. We haven't the space to instruct you here. If you know how, make up a statement at least quarterly, and preferably monthly. Of course, we assume that your books are correct. If they are kept in your hat, then you're not going to figure profit accurately even if you can calculate the formula in your sleep.

Profit and Loss Statement

Suppose this is your condensed profit and loss statement for the past three months. (Figures are merely illustrative and not necessarily indicative of any printer's ratios.)

Sales	$12,000	100%
Cost of labor and materials	7,200	60
Margin of profit	$ 4,800	40%
Overhead expense	4,200	35
Net profit on sales	$ 600	5%

If you are keeping overhead expense down to the minimum and are making the desired net profit on sales (in this case, 5 per cent), you must see to it that every job handled during the current month is a miniature of this profit and loss statement in its percentage-to-sales ratios.

Figuring Profit on One Job

Say that you have figured the labor and materials on a job at $300. This $300 is the base figure. Now, what's the ratio of time and materials (the cost of sales) to sales on your profit and loss statement? In the foregoing case, it is 60 per cent. Divide $300 by 60, which gives $5, and multiply by 100, which makes $500 for the job, to wit:

Selling price of job	$500	100%
Cost of time and materials	300	60
Margin of profit on job	$200	40%

If you keep down your overhead expense to the ratio experienced in the prior period, you are sure to make 5 per cent profit on the job even if you quit figuring right here, although you may as well carry out the calculation showing the overhead and net profit allotted to job:

Selling price of job	$500	100%
Cost of time and materials	300	60
Margin of profit on job	$200	40%
Overhead expense allotted to job	175	35
Net profit on the job	$ 25	5%

If you know the ratio of time and materials to sales and divide this figure into the dollars-and-cents estimate on time and materials, the result represents one per cent of the selling price you should charge for the job to make the desired net profit. The selling price is always considered 100 per cent, so multiply

by 100, and you have an umbrella big enough to cover overhead expense and net profit, providing you manage the jobs competently, which is not a problem in cost accounting. It's a matter of supervision. No matter how accurate your books or how accurately you estimate your jobs, you can lose money if you manage them recklessly.

A Simple Estimating Form

Overhead control is mighty important in the printing industry, but we think that in too many instances the stress has been solely on this element of operation. As we find it, most printers do try to keep down their overhead. They don't throw their money around like Broadway night owls. Their Achilles' heel is the use of the wrong formula, or the right formula that works out the wrong way because it is too involved, or they go back to the Middle Ages for their comparative figures instead of using those as close to the current month as they can get, which would be the operating figures for the prior month or the prior quarter.

If, when estimating a job, you use the ratio on time and materials as shown on a recent (and accurate) profit and loss statement, you are sure to make the margin that will cover overhead expense and net profit because the difference between the cost of time and materials and the selling price is the margin. This is a simple calculation that any printer can make in a few minutes. Why guess when you can be safe?

Despite use of this simple estimating form, the printer can go wrong on job costs because he may figure time and materials wrong when he calculates the hours the job should take and the cost of the paper, cuts, and such. This is his basis of computation. If time and materials are estimated too low, he won't come out right on net profit.

This costing hazard can be minimized with his experience records. Every printer should have such a file. Comparatively few, particularly the small and moderately-sized operators, keep experience records. The printer should use estimate and job costing forms so that he has guides to refer to when figuring current jobs. These experience records will help cut down any errors in calculating the time and materials required on a job. They will also speed up the work of estimating, which eats up time when the printer works "in the blind."

A review of job-costing records covering the month's work should be a monthly chore, a tie-in with an analysis of the profit and loss statement. In many cases, it will explain a loss or a short profit on the profit and loss statement. If you lose money on some or all the jobs done during a month, or if you shortchange yourself on profit, you can't expect the books to show the desired net profit for the same period.

But on the other hand, your job-costing forms may show that each job was profitable on paper, yet the books show a loss or less profit than anticipated. In this unhappy event, look into your overhead expense. It may have increased, an increase not covered in your estimate. You'll have to cut your overhead expense or increase your estimates the next month to cover the added expense if it becomes a permanent outlay.

If your men are not working on jobs for every hour you pay them, your job-costing records may show a profit but the net profit on the books may be less substantial. Theoretically, if a printer keeps job records and keeps his men working full time, if he figures labor and materials accurately, the total net profit on the job-costing forms should agree with the net profit shown on the books for jobs completed during the period. But there are too many variables in operation to expect to balance job-costing figures with the financial accounts. These studies are excellent checks, however, one against the other. The printer who uses this monthly check-up will keep his costs down and profits up.

One simple check of estimating accuracy, although not conclusive, is to compute the ratio of labor and materials to sales on the current profit and loss statement, then check this figure against the ratio on cost of materials and labor as shown on each completed job for the same period. If the ratios differ substantially to the printer's disadvantage, he should investigate the differences and take remedial action.

With a buyer's market getting stronger, with the likelihood that costs will remain high for some time after prices decline, the printer must do a better job of estimating jobs and then check his estimates against job costs. The formula given in this article will simplify this work and should be particularly beneficial in small and medium-sized plants where paper-work in cost accounting must be kept at the minimum.

By G. Lundway

"He's still talking about valuable contacts. I guess he didn't make any sales this trip."

By Charles F. King

Perverse Behavior of Paper

● IT MAY be an engraver's p. of or a proof made by a lithographic trade shop, or it may be some printed matter produced by a competitor. Perhaps it is a color swatch that the artist daubed out on a piece of drawing paper, or even a piece of a lithographed tin can. Whatever it is that the customer gives to the printer or lithographer as a color-copy, if the inkmaker is called in to match the color, he will be sure to ask for a sample of the stock on which that job is to be run.

Why is this so important? If the job is to be printed on tinted or colored paper with colored inks, naturally the color of the paper will alter the shade of the ink when printed, and the inkmaker must make his proofs on the tinted stock, but for the most part printing is on "white" paper and it would appear that it would have very little effect on the finished job. Are there then some other properties the inkmaker must consider in formulating the ink for a job?

Much has been written about the standardization of inks. At present there are some rather lively discussions taking place in Europe concerning the standardization of colors for printing and lithography. Whenever such discussions arise the question of paper is always brought up and there the question hits a snag. *There are no accurate ways of predetermining how a sheet will behave on the press.* It is impossible to state positively that two successive sheets from the same lot of stock will print the same color even when fed one behind the other through the same press with no change whatsoever in ink, press speed, fountain adjustment, or pressure. Since paper is sheeted several rolls at a time, successive sheets are generally taken from different rolls. Although each roll may conform to the specifications set up by the paper mill for that particular grade of paper, those specifications are based on scientific laboratory tests, rather than a work trial of the printing and lithographing properties of the paper.

Most writings on the desirable properties of offset papers are concerned with the mechanical characteristics of the stock, particular emphasis being placed on the stability of the paper under varying conditions of temperature and humidity. Ofttimes the statement is made that in order for a stock to be suitable for offset lithography it must be made stronger than a similar sheet for letterpress, or that the coating must be bound to the body-stock more strongly.

Occasionally some reference is made to the fact that the coating or sizing should be waterproof, or that the coating should be neither too acid nor too alkaline. As a result, most of the tests made by paper mills have little to do with the actual printability of the sheet, although they may be concerned to a considerable extent with the suitability of the sheet for the end use to which the printed matter is put.

Test for Pick Resistance

These tests generally consist of the determination of the bursting strength, surface smoothness, opacity, gloss, resistance to tearing, wet strength, brightness, moisture content, basis weight, formation, color, and thickness. One test, long employed, which did give results comparable with press performance was the wax test for determining the pick resistance of a stock, In this test a series of waxes which varied in their ability to adhere to the surface were melted and placed on the stock and permitted to cool. When the cooled waxes were pulled from the stock the less adherent ones would come off without any of the coating or paper fibers sticking to them. Thus by specifying the number of the wax which shows no picking, it is possible to give a numerical designation to the pick-resistance of a sheet.

Lately, however, the reliability of this test has been "knocked into a cocked hat" by the incorporation of latex into coating formulations. Many sheets which should prove unsatisfactory, according to the wax test, work well on the press. Thus one of the few tests which corresponded to even one phase of press performance can no longer be considered reliable.

Another test which is sometimes applied to paper consists of drawing down a heavy film of a special ink onto a small portion of the sheet and permitting it to remain there for an exact length of time (usually two minutes). This ink contains a dye which dissolves in the oil portion of the ink and as the oil penetrates the stock it leaves a stain which can be examined when the ink has been removed. Although this test does indicate differences between sheets, considerable experience is required to interpret results properly. There can be no standard set up and given a numerical value to which limits can be assigned. Hence this test can only be used to compare two or more sheets simultaneously and even then it does not always give a complete picture of ink absorption. Furthermore, with one of the commercially available test inks, the pH of the coating (or the stock in the case of uncoated stocks) changes the color of the dye in such a manner that differences are shown between sheets which actually do not exist.

This question of pH of the coating is another one on which some fallacious assumptions have been made. Two facts are known: If the coating (or the stock of an uncoated sheet)

has an exceptionally high or low pH this acidity or this alkalinity can be transferred to the water on the blanket, thence to the plate and through the dampening system and into the water fountain. This can cause the pH of the fountain water to change greatly during the run and perhaps cause the plate to go blind or scum.

Don't Speak Same Language

The second fact: The higher the pH of the paper, all other factors being constant, the faster the ink will dry. However, it does not necessarily follow that a sheet which has been coated with a mixture which is practically neutral or even slightly alkaline will work well in lithography regardless of the composition of the coating. Even assuming that none of the materials are water-soluble, it still does not mean that the coating will be satisfactory. Cases have been known where materials were incorporated which apparently reacted with the acid in the fountain water, even though the pH of the coating had been very carefully balanced.

In one such instance on a multicolor press, a very light form was run on the first unit. The type of ink and nature of the form made it necessary for the pressman to carry considerable acid in the fountain on the first unit. Coating then piled on the second unit blanket and caused the ink to pile on the plate. Tests showed that the fountain water from the first unit could react with some of the materials in the coating and leave a loose powdery material on the sheet. Thus a test of the pH of the coating on a sheet cannot be considered reliable means of determining the suitability of a sheet of paper.

It would be unfair to lay the blame for these conditions entirely on the papermakers. They have spent more money in investigating means of controlling and standardizing their products than perhaps any of the integral branches of the graphic arts. They would welcome methods which would aid them in predetermining the printing qualities of paper. During the war, when the printer's customers would accept almost anything as long as it was legible, the mills did an excellent job of supplying a demand far in excess of their regular capacity. True, much of the stock was horrible as were many of the jobs printed on it, but as long as the consumer would pay for the job everyone let well enough alone. Today the situation has been reversed and the mills are besieged by complaints and requests for service calls despite the fact that since the end of the war, the paper companies have constantly tried to improve their product.

Not only have papermakers tried to bring quality up to prewar standards but also they have been working to produce papers far superior to any papers which existed before the war. Many new materials are available to the papermaker and greatly improved equipment has been put into operation. By the standards upon which the papermaker judges the quality of paper, today's papers are far superior to any the printer has ever been able to buy. But all these improvements have not necessarily meant that the printer, and especially the lithographer, have had papers which were superior from their point of view.

Actually the crux of this situation seems to revolve about the condition existing within the industry where the "left hand knoweth not what the right hand doeth." This is not caused by desire on any part of the industry to work independently or arbitrarily fail to co-operate with other branches, but rather from a lack of understanding between the papermaker and the printer and the inability of the two to understand the same language. The inkmaker works closely with the pressman and although he may have a language all his own, he can understand actual pressroom problems.

Need Mutual Understanding

An illustration of this vocabulary trouble can be taken from a recent talk by a technical man from one of the paper mills. In speaking of the requirements of coated papers for lithography he described three types of paper failure: First, the coating will pull away from the body-stock, in the second the body-stock itself splits, and in the third case a part of the whole sheet (body-stock and coating) is pulled off. To any offset pressman, or any letterpressman for that matter, these three conditions would be termed "picking," but to this papermaker only the case in which the coating was removed from the body-stock would be "picking." If a report was sent in that a certain stock was picking, the mill would presumably make no change in body-stock but would increase the adhesion between the coating and the stock. If either of the other two conditions existed, the trouble would not be corrected.

Still another misunderstanding between the papermaker and the printer seems to have arisen concerning cast-coat papers such as Kromekote. Prior to the introduction of this type of paper the high finish on a sheet resulted from the operation we know as calendering. Both coated and uncoated stocks were given a high finish by passing them between heated rolls which literally ironed the paper smooth. By this method the surface of the paper was polished smooth and at the same time generally made less ink-receptive. As a rule, the offset pressman could figure that the more highly paper was finished the less tendency it would have to absorb ink.

Securing Glossy Appearance

Such paper owes its finish not to calendering but to the coating being dried in contact with a smooth chrome surface. The sheet does not receive any calendering after it has been coated. The cast-coat process closely resembles the production of glossy photographic prints by ferrotyping.) Instead of this glossy surface being relatively low in ink absorption, this paper takes ink very readily. In fact it drains the vehicle from the ink so completely that the pigment particles of a standard ink remain on the surface of the paper with little varnish to protect them. As a result, when regular inks are used they have poor scuff-resistance and the pigment particles on the surface cause the printed areas to be dull rather than glossy.

Some lithographers seem of the opinion that all that is necessary to make the printed areas glossy is to run inks transparent enough to permit the gloss from the paper to show through. This cannot be done. In order to make the printed areas dry with a glossy finish, special inks formulated to leave a film of varnish covering the pigment particles must be used. Considerable time and experimental effort has been spent by some ink companies to produce inks which will perform in this manner. However, sometimes pressmen cannot understand why they must carry so much ink to get the required depth of color if they wish to secure a glossy effect at the same time. It appears that some deep shades of color cannot be reproduced upon Kromekote and similar papers if a glossy print is desired. Strangely enough, many of the purposes for which Kromekote is now being used were not even considered as possible uses by the papermaker at the time it was developed. By working with the printer, the inkmaker was able to take advantage of desirable properties in the paper and circumvent some which were undesirable.

Although the example of Kromekote may perhaps be more extreme than problems commonly encountered, basically it's the same trouble encountered daily in practically every lithographic shop in the country, seldom recognized either by the papermaker or the lithographer. Actually it is the basis for the oft-repeated statement that it is impractical to attempt to make lithographic inks which are ready to use without any alteration. The reason invariably given for this statement is that different papers require different types of ink. Even inks which are sold as ready-to-run carry some instructions for altering them.

One of the greatest differences between papers from various mills, different grades of stock, or even between sheets within a load is the ability to transfer ink from the blanket. Here lies one of the big problems in offset press operation. Whenever an offset pressman "soups up" (unless to eliminate picking) or stiffens up his ink, he is (perhaps unknowingly) attempting to compensate for the inability of the paper surface to remove the ink from the blanket. A pressman says that he is going to add 00 varnish to his ink to make it print blacker. On the surface this seems ridiculous since he will be weakening his ink. This should mean that he would be required to carry more ink and possibly cause the shadow tones to fill in. Actually what the pressman is unknowingly hoping for is that during the short time the printing area is in contact with the paper, more of the softer ink will be absorbed by the stock than the amount it absorbed of the heavier ink. Sometimes this works. When it does, instead of the tones filling in, more ink is transferred from the plate to the blanket and actually the plate may begin to sharpen up considerably. Likewise, more fresh ink is continually being fed from the fountain and there is considerably less chance of the ink becoming waterlogged.

Adding 00 varnish will not always perform this miracle. Sometimes it is necessary to go in just the opposite direction and stiffen up the ink by the addition of body gum or Number 8 varnish. In such cases the idea is not to cause the ink to be absorbed into the paper but to make it more tacky so that more ink will adhere to the surface at each impression. Such a technique is employed in laying color on tin, where there is absolutely no absorption of the ink. With tin there are no worries about making the ink so tacky that it will cause picking or distortion of the sheet, two conditions which are usually the limiting factors in determining how far a pressman can go by adding tacky materials.

Room for Improvement

Here then is the most important property required of an offset paper whether it be coated, or supercalendered, or machine finished: It must be able to cleanly and uniformly transfer ink from the blanket. If the sheet must be varnished or lacquered, too high a rate of ink penetration makes it impossible to obtain a good gloss. The same fact applies to gloss inks. Here the essential property is strength in the sheet to make possible ink with enough tack to transfer cleanly. In multicolor dry printing, where the first colors have changed the absorptive properties of the stock itself, strength is of prime importance.

For single-color work, where no gloss coat is to be applied, an entirely different sheet should be employed. This sheet should have the ability to remove the ink quickly from the blanket by absorption, and would not be required to have the strength and pick-resistance now incorporated in all stocks designed for lithography. On such single-color work beautiful black and white halftones have been lithographed on coated paper which picked with a Number 3 wax (stocks designed for lithography seldom show any picking with waxes below Number 7). The ink used was of a consistency comparable to that for rotary letterpress.

Above all, satisfactory means are needed of testing stock for strength, for ink absorption, and the uniformity of these properties, together with tests which would indicate the chemical stability of the paper in relation to fountain water. Since ink at present is mostly custom-made and further custom-fitted in the lithographer's own shop, it would appear that little progress can be made by the papermaker without the cooperation of both inkmaker and lithographer. Ink and paper should be built for each other instead of the paper built and the ink then made to conform to it.

—ANOTHER IN A SERIES OF TOPFLIGHT CRAFTSMEN

Ernest E. Jones

The turn of the century found Ernest E. Jones in Racine, Ohio, sandwiching formal education (high school) in between ball games, fishing trips, and experiments in portrait photography.

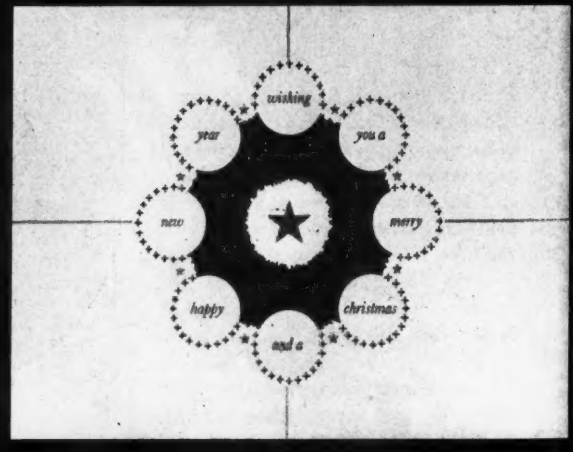
The last mentioned occupation evidently made the greatest impression on the Jones boy, for he eventually set out into the hills of West Virginia to capitalize on his ability as a photographer. X-ray work and commercial engraving in Wheeling, West Virginia, and an introduction to photo-offset in Pomroy, Ohio, followed naturally.

As a photoengraver, Mr. Jones successively plied his trade in Toledo, Cleveland, South Bend, and Chicago—eventually returning to Toledo where he has resided since 1920. Since 1927 he has headed the nationally known Graphic Arts Corporation. During World War II, Mr. Jones' organization's efforts in map-making for the United States Army were awarded a certificate for excellence in production.

Mr. Jones was active in the organization of the Toledo Club of Printing House Craftsmen, and has served as president of that group. His progressive efforts in the graphic arts industry have also been recognized by the National Lithographers Association, the Photoengravers of America, and the Lithographic Technical Foundation in which he serves as a member of the research committee.

Colorful!

Not only good layout and nice typography, but well-chosen colors, too, play an important part in the attractive appearance of these printed pieces designed by the Hoflund-Schmidt Typographic Service, Denver, Colorado. Such combinations of hues as deep blue-gray, gray, and magenta on white; deep green, red, and gold on pale green; tan and black on ivory; and rich red-brown and gold on white enhance these fresh, modern designs.



twenty-six forceful characters

• An old French printer once said, holding a font of type in his hand: "with these twenty-six soldiers of lead I have conquered the world!" • Type used in an advertisement will speak triumphantly for you or against you. Be governed by the experience of national advertisers. Make it speak FOR YOU by using the services of a recognized typographer. *It is a guarantee that your direct mail, magazine and newspaper advertisement will receive the proper attention by the readers.* • Here at Hoflund-Schmidt you will find a wide selection of type faces and your work receives the attention of a recognized typographer. Need we say more...

HOFLUND-SCHMIDT TYPOGRAPHIC SERVICE • ALPINE 7686

✱ *creative advertising typographers, artists for advertisers, agencies and printers*

By Eugene St. John

THE PRESSROOM

Questions on pressroom problems will also be answered by mail if accompanied by a stamped envelope. Answers will be kept confidential if you so desire and declare

SLUR ON BACK EDGE OF PRINT

We enclose a press sheet, printed on a job cylinder press, which shows a black edge on the cuts at the tail end of the sheet. Can you give us any idea of what may be causing this condition? This happens on all forms. If you will notice, it also appears on the blue form as well as the black. Our pressmen are highly skilled mechanics; the cylinder is riding the bearers perfectly; the plates are type-highed to the nth degree; the cylinder is not overpacked; and rollers are set perfectly.

As this slur shows on all forms, one common cause of slur in this location (slapping of the edge of a heavy sheet with narrow margin against the back edge of the form) is automatically eliminated. You state that plates are type-high and the cylinder is not overpacked and riding the bearers.

This leaves as possible causes of this kind of slur: A low spot in the bearers; oil or other matter on the bearers; air cushion not adjusted to the speed of operation and the mass of the form. The last is most likely the cause, resulting from the cylinder traveling faster than the bed when it slows down toward the reverse.

CAUSES OF GHOSTS

From time to time we have trouble with ghosts. The trouble is not encountered on just one press, so we are anxious to know where to look for the cause or causes of this trouble.

Before the platen presses were equipped with vibrators to spread the ink sidewise on the form rollers, ghosts were more common than today. Two makeshifts were resorted to in those days: form rollers of different diameters, and angled positioning of the unit of the form causing the drain on covering capacity of the form rollers, which necessitated using angular furniture and locking up the form and feeding the sheet on an angle. When these makeshifts failed, as they often did, the last resort was to double-roll the form.

The first place to look for trouble when a ghost appears on a press fitted with vibrators on the form rollers is the set of the form rollers to the vibrators. If all the rollers of the inking system are in good condition, all in use, and the form rollers correctly set to both vibrators and form, trouble is seldom encountered with ghosts.

But if the form rollers are out of round, too hard, and without the tack that determines their efficiency, the best setting may not overcome the tendency to ghost if the unit of the form is large enough to test the sidewise distribution. The same is true if the form rollers are waterlogged or approaching that condition, for then their tack is gone and without tack they can not cope with the ghost.

Since the form is under the traveling form rollers, on both cylinder and platen presses, if the form rollers are not fully efficient the ink would tend to leave the form rollers too free for the form, especially if the rollers have lost their tack and the ink is of low viscosity. The tendency to leave the form rollers too free for the form would be increased if the rollers are set too heavy on the form. When the foregoing conditions prevail it is sometimes possible to get around the obstacle by setting the form rollers as light as practicable to the form, as snug as practicable to the vibrators, and also increasing the viscosity of the ink to offset the lack of tack in the form rollers.

It may be seen that lack of sufficient sidewise distribution remains the cause of ghosts today as it did yesterday, and if conditions are such today in a pressroom that the ghost cannot be avoided, the same last resort is to double-roll.

FLUORESCENT PRINTING

We are anxious to obtain details of fluorescent inks. Would you send this inquiry to the manufacturers of such inks or let us know where we may find them?

This specialty ink is advertised by a number of inkmakers who will supply information on request.

MULTICOLOR EQUIPMENT

We would appreciate advice relative to the type of letterpress machinery best suited to the production of four-color work similar to the mail-order catalog being forwarded to you under separate cover. Our inquiry calls for 150,000 copies of a catalog printed in four colors throughout. At present this catalog and several other similar ones are being printed on single-color standard modern machines. As you doubtless appreciate, they take up to three months to produce. The additional color pages required on future issues would increase impressions on single machines to a total of 3,600,000. It is essential for us to find a more economical and faster method of printing. Mail-order catalogs repeat twice yearly, but of course this is not the only kind of work we would want to produce. For instance, we have steady orders for large quantities of four-color labels as well as for numerous editions of books, with sixteen pages and cover, running into 100,000 copies.

Presses built especially for this type of work, capable of a high grade of printing economically produced in a minimum time are standard equipment for big jobs in four colors. These presses are fitted with installations which permit the use of heat-set inks.

SLUR IN CENTER OF PLATES

Would you give us your opinion as to what caused the slur in the center of a plate, proof of which is attached? The press is properly adjusted and the cut itself seems okay. We have been having a discouraging amount of trouble with slur recently and would like to get at the source of it.

There are two causes of slur in the central part of a plate when press adjustments are not at fault. The center of the plate may have been forced up when the edges were pinned down with brads on the wood base in the photoengraving plant, or subsequently. Or improperly graduated interlays may have been used, which allow the plate to move on its base under impression. The corrective is obvious: a better interlay.

When the edges have been pulled down in the mounting so as to cause the center of the plate to rise, which

results in slur, try improving the mounting. If the trouble is frequent, buy plates unmounted. See that the bases are level and of correct height and then do the mounting yourself. Using a drill a size smaller than the nail or brad to be used, make the holes in both the plate and block before driving in the brads. This method is also useful to prevent brads from working up and causing trouble during a run.

PACKAGING PROBLEMS

We have a packaging problem and hope that you can help us. It is a package such as used by the needle industry—a small, self-contained package closed merely by folding or possibly by using a staple. We are not at liberty to say what product is to go into the package but it will be "small pieces of paper." The outside of the package will be in two or three colors and the material can be light paper stock or even a light plastic if this can be folded successfully. If this product is successful it will run into hundreds of thousands of units and the inserting of the product in the package, of course, would be part of the job to be done. With this operation, you can clearly see that it is more than merely a printing problem.

Our advice is to patent the product and then present the problem to the suppliers in a more concrete form. These suppliers have taken all sorts of printing and packaging problems in their stride but your present description is not stated definitely enough for them to be of help.

MULTICOLOR PROOFS

We have heard that there is a way of pulling multicolor proofs of the parts of a form without breaking up the complete form for colors. Is this possible?

It is possible to pull proofs of the parts of a form in colors (if there are sufficient margins between the parts) by rubbing "gray powder," a mixture of mercury and chalk sold at all drug stores, over the face of the part not to be printed. Do this before inking the part to be printed. The rejection of ink by mercury has been utilized in the Pantone and other processes.

SAGAMO TIME SWITCH

We have been asked for the name and address of the people who make Sangamo time switches. We'd appreciate this information if you have it.

It turns out to be the Sagamo time switch. We welcome always such inquiries. We were suprised when seeking the source of supply of parts for a press long considered as off the market, to learn from the manufacturer that this press with an air feeder is still being made.

LUMINOUS INKS

Can you give us information regarding printing in luminous inks or refer us to articles on the subject?

There are two kinds of luminous (luminescent) printing inks, the fluorescent, luminescence of which lasts only as long as the activating light source shines upon them, and the phosphorescent in which the luminescence will continue for some time after activating light source is removed, the afterglow continuing from a few seconds to many hours.

These inks are used not only in the regular letterpress manner but also for reverse printing (on the reverse side of the sheet to shine through for reading), and after the manner of bronzing, the phosphorescent powder being dusted on a wet print. These inks are also used in lithography and decalcomania.

So far the field of luminescent printing has hardly been scratched. It offers many opportunities for the specialty printer.

NO. 6 IN A SERIES OF SUGGESTIONS ON

How to Avoid SET-OFF

★There is no question but that electric or gas heaters at the delivery end of presses are a big help in eliminating set-off. So when this troublesome situation arises, make sure that: THE PRESS IS HEATER-EQUIPPED AND THE HEATER IS BEING PROPERLY USED; ALSO THAT THE SHEET DELIVERY IS FUNCTIONING SMOOTHLY.

Press heaters momentarily reduce the viscosity of ink, stepping up its penetration. Heaters also tend to make the stock more absorptive while it is at a higher temperature by expanding the sheet and giving off surface moisture, thus speeding the setting of the ink.

In the case of overprinting solid colors, or when the ink being run cannot penetrate the stock, however, heat is generally detrimental. The heat softens most inks, and if they cannot be absorbed by the paper, aggravate offsetting and sticking.

It is important that the sheets of paper drop smoothly and evenly onto the delivery pile, or set-off is likely to occur as a result of portions of a sheet dropping and bouncing on the surface of the preceding sheet. A few minutes spent in insuring the smooth, even delivery of the printed sheets may effect worthwhile savings.

—Courtesy E. J. Kelly Division of Sun Chemical Corporation, Kalamazoo

SNAP-OUT CARBON-SET FORMS

We know you receive numerous inquiries regarding presses for the manufacture of snap-out or carbon-set invoices and other forms, and hope you will not object to receiving still another. We are job printers who do mostly regular types of commercial office and factory forms and loose-leaf sheets. Some of our customers are adopting the carbon-set forms which in most cases are made by large specialty houses. Is it practical for the medium-sized printer to install, say, one machine for this specialty or just what is the equipment necessary in addition to our present plant which is already fairly well equipped?

While it is true that a high percentage of this work is turned out by large specialty plants, a considerable number of commercial printers also have entered this field. Your best approach is to tell the suppliers of special equipment the extent of your present equipment. Then they will be able to suggest whatever additional machines may be necessary to enable you to compete in this special field.

COMBINATION OF PROCESSES

The combination of rotogravure and offset-lith on the same newspaper press is being tested. The rotogravure section of the press will apply a white coating to the newsprint, affording a better ground with light-reflecting quality which also copes with show-through and strike-through. Rotogravure is the only one of the three major printing processes which has the inking system capable of a good coating job similar to that of the paper mill. Offset-lith with roll feed naturally fits into the dual method.

(For some time the three processes have been used on the same press in printing color work on foil.)

HOT WAX CARBONIZING

We are interested in hot wax carbonizing. We shall appreciate any information you can send us regarding the machinery, material, and method for carrying this out.

The hot wax carbon is applied on a rotogravure coating machine which has been found well suited for this purpose. This process is fast and efficient for both spot and all-over quality carbonizing.

THE PROOFROOM

By H. D. Bump

The editor of this department welcomes proofreading questions to be answered in this column, but personal replies cannot be made by mail

BAD FLOOD—BIG LOSS

What do you do in a case like this: "As a result of the flood, forty acres of freshly planted seed corn *(was—were)* a total loss"?

We'd say "acres *were*," being a believer in agreement of subject and verb. Actually, the seed corn *was* the loss. The acres will show up eventually, minus good topsoil, but there won't be any roasting ears around that farm this summer. Probably no one would drop dead from hearing you say *was*. The ideas are singular: loss—and a seeded, forty-acre plot of ground.

We discovered a similarly interesting example of agreement in one reference: All you told me about *was* the dangers; *and* All you told me about *were* the dangers—this last also approved because the complement is felt so strongly to be the real subject that a plural verb is used.

Anyhow, we would say *were*.

SOMEBODY'S ELSE

I have always thought that somebody else's was the correct way to indicate the possessive of this compound, but I saw in an old text the usage somebody's else. Was this once upon a time correct and has it now been superseded by adding the sign of the possessive to the end word in the combination compound?—*Burton Wallace*

We will turn your question over to H. W. Fowler *(Modern English Usage)*. He says: "The adverb *else* has come so near to being compounded with certain indefinite pronouns and words of similar character *(anybody, everyone, little, all, etc.)* that separation is habitually avoided . . . The usual possessive form is not *somebody's else*, which is felt to be pedantic though correct, but *somebody else's*."

TO HYPHEN OR NOT

How do you apply the prefix re and other prefixes ending with a vowel for words like re-enter, re-creation, reform, etc? When do you use a hyphen and when don't you?

Prefixes ordinarily are joined to words. The hyphen is used with words beginning with the terminal vowel of the prefix or sometimes with *w* or *y*. Use the hyphen when the prefix is joined to a proper name: *Pan-American, pseudo-Christian*. Use it with long or unusual words: pre-professional. Use a hyphen when lack of one would suggest mispronunciation: *co-author, pro-ally*. And, as with your example *re-creation*, use a hyphen when the meaning of the word would change without it: *re-cover, recover*.

Half a Century Ago in the Proofroom

A short time ago I read in your columns of a proofreader who complained because a compositor had set up the word "nurses for "muses." Several days ago it came to my memory again, and I wondered what he would say had he read three galley-proofs which passed through my hands where the compositor had set *snare* smile for *suave* smile, *heart* for *health, very* for *weary, purring* for *parting, glut* for *greet, tendencies* for *tendrils, Inixotic* for *Quixotic, octeran* for *veteran, friends* in hell for *fiends* in hell, *bellows* for *billows, grins* for *gains, jurik* for *pink, canal* all obligations for *cancel, market* contrast for marked *contrast, smiles* for *sinless*. These and many more such errors were found within the scope of about three galleys of 10-point double-leaded, 24 ems wide, good copy, and plenty of time for composition. Can you suggest any reasonable excuse the compositor can offer other than perhaps low wages, when he is known to have set clean proofs many times before?

In a few of these cases the error may have come from having a wrong letter in the box, as in *grins* for *gains*. I do not see how low wages can be an excuse. Aside from foul distribution, it looks like a case of crass ignorance or deviltry.

F. Horace Teall

PROOFREADER'S MARKS

I was told in school, when a letter is missing in a word or line, you are to place a caret pointing to where it belongs and in the margin on the side of the paper write the correction like this: n/. Then I was told by a printer to write the missing letter in the margin without the slanting line: n. Could you please tell me which is right?—*Peter DeBlass*.

The *Manual of Style* (University of Chicago Press) says: "Proofreader's marks vary somewhat, but all sets of marks have the same general intent. They are simply symbols adopted for expediency, to save writing out instructions that take time and space."

Most lists of marks show the slanting line after the missing letter, if you want to follow the conventional marking. Our practice is to mark out the entire misspelled or incomplete word in machine-set copy (since the line must be set over) and write the correct spelling in the margin. This procedure requires less time than precise positioning of a caret, especially in small type or messy proofs, and is easily understood by the operator when he makes corrections.

The main considerations about any kind of marking are clearness and simplicity.

CORRECT POSITION?

Note the position of the interrogation-point in this sentence: *What is meant by the statement, "My father is greater than I"?* What is your opinion of its correctness? It is claimed by an American editor that, although it may be grammatically correct, it is "awkward-looking and unmechanical." On the other hand, it is maintained that this is not an argument; that the above is a correct application of the rules of punctuation, and is followed by the leading journals and periodicals of the present day.

My opinion is that the point is given in the correct position, and that the other position is incorrect. Probably, however, of the leading journals and periodicals of the present day, those which print such things incorrectly outnumber the correct ones.

POOR "IS" AND POOR US

Now look what you have done! That lower-case *i* in *is* in the headline on page 37 of the May IP. Just suppose your Mr. Teall were living!

I know such things happen despite all efforts to avoid them. But I can't help giving a whoop about this one.

(Head: How is Combination Letterpress-Offset Printing Plant Idea Working Out?)

Shall we say "That's right; we're wrong" or argue the thing out? You are right: *is* may be tiny but it's a verb. But it is an ugly word with a cap *i*, small *s* in a sans-serif face. Maybe our subconscious love of beauty caused us to let it go through. It was a "such things happen" error. Teall didn't brood over mistakes not in his department.

LIABLE FOR LIBEL

Where do you stand when in setting some legal matter which has been marked "True Copy" it is later discovered there is an error in it? I know you get fired, but are you sued also? —*Roy Larsen*

One can always find a member of the bar with time enough on his hands to dream up a suit for almost anything. But if you demand a jury of your peers, and the error was in the original copy, we think you are safe enough. You might not even get fired—in fact, we don't believe you would, most printers being sensible people.

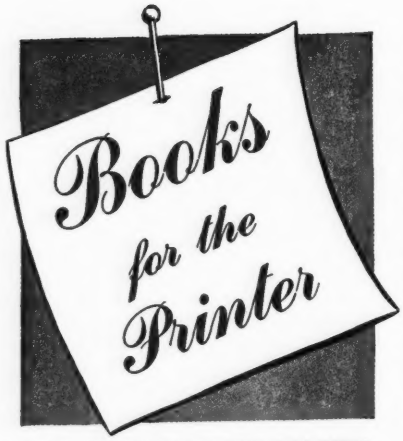
Libel laws differ across the country; a printer can get into a mess of trouble in most states for setting libelous matter—no matter who wrote it or who is paying for the printing. Ignorance of the law won't help him any.

FROM A GENUINE IRISHMAN

Having lately received some copies of THE INLAND PRINTER, I am writing you with a twofold purpose: to congratulate you for a very interesting and educative "Proofroom" and to request information on books dealing with proofreading, style, and related subjects.

Owing to the impossibility of procuring dollars, perhaps we could arrange some system of barter. You or some of your friends might require something from this side of the Pond, and we could do a deal.

If it is consolation, sir, there are those amongst us here (me, too) who sometimes find procuring dollars an impossibility. Sweepstakes tickets or shamrocks for books—any of our Yankee Proofroomers care to match bartering wits with this Irishman? We will send his address if requested. Don't send letters to us to forward—Irish letters cost five cents and we're Scotch.



AS A SERVICE TO OUR READERS, THE BOOKS REVIEWED HERE MAY BE ORDERED DIRECT FROM OUR BOOK DEPARTMENT

THE PENROSE ANNUAL, *1949, Volume 43, edited by R. B. Fishenden.*—It's an extremely welcome opportunity to once again have the privilege of reviewing this annual publication which for so many years has exerted such an outstanding influence on printing and its related arts the world over. We extend our warmest compliments and our congratulations to the publishers on again resuming publication, and especially on having done such remarkably excellent work on every phase of the book after the severe difficulties experienced through the war years and the reconstruction period following.

This is the first issue of Penrose Annual since 1940. Hence the editorial review and many of the feature articles cover in retrospect the intervening years, "a decade," as the editor states, "in which technical, scientific, and even the cultural developments will have a marked influence in determining future trends; this influence extends beyond those industries with which we are closely connected."

The review by the editor includes: The recognition of design; the craft of the illustrator; auto- and photolithography, a new link; typography; technical progress; photographic type composition; alternatives to photographic type setting; letterpress printing and duplication; paper, inks and standard color inks; color photography; photoengraving; offset and photooffset work; collotype; photogravure; silk screen printing; electronics; and Patra House (the latter being a brief discussion of the progress being made at the new laboratories of Printing, Packaging and Allied Trades Research Association).

Feature articles cover an extensive range of subjects on practically all phases of the graphic arts: Book making, typography, design, type legibility, book illustration, printed pictures, color, photography, research, color photography, photographic type composition, typewriter composition, plastic printing plates, photo-litho, halftone, screen process printing—all these and many more subjects are treated briefly but effectively. Adding an interest and educational value are the numerous reproductions illustrating the different articles, and the collection showing different techniques and processes at the back of the book.

"The Penrose Annual, 1949," may be ordered through THE INLAND PRINTER book department. It is priced at $8.50 a copy.

THE NEWSPAPER.—A study of the daily newspaper and its laws, by Ignaz Rothenberg, covers an extensive field and presents a thorough study of the laws governing newspapers in all countries. In his preface the author says he had "two aims in mind when writing this book: firstly, to interpret and to compare the rights and duties which apply to the work of newspaper men in various countries, and, secondly, to show the various sources from which these provisions have originated."

The author takes in practically every phase of newspaper publishing, starting with the liberty of the press, the first proclamation of press liberty, limits of the freedom of the press, prosecution of press offences, and on into anonymity, corruption of newspapers, false news, libels committed by the press, reports of legal and parliamentary proceedings, on to who is responsible for the contents of the newspaper, and rules relating to press offences. "The Newspaper" is $5.50 a copy, and may be ordered through THE INLAND PRINTER book department.

COLOR PRINTING, by Thomas E. Griffits, presents "A practical demonstration of color printing by letterpress, photo-offset lithography, and drawn lithography, with illustrations demonstrating alternative methods of production and including a comprehensive color chart," as the subtitle states. In the "Author's Note" it is stated that "the series of charts are an earnest attempt to show that color printing need not be restricted to stereotyped methods, but can be an enterprise with beneficial results."

The work consists of two volumes, in a case. The first volume contains the text, and in addition to other notes gives details of the working out of the charts. The charts show the effects, in four-color process printing, of varying the progression of colors, and also of toning the inks. For example, Chart A shows the regular order of printing—yellow first, then red, blue, and black, with standard chromatic letterpress inks. Chart B shows the same subject, with the same inks, but printing red first, then yellow, black, blue. Chart C also shows the same subject, printed red first, then yellow, black, blue, but with each ink being toned with its complementary. Chart D shows the black

printed first, then red, yellow, blue, each ink being toned with a color containing a proportion of its own color.

Charts E, F, G, and H show the same subject printed from photo-litho plates, with the progression of colors and the inks being the same as on Charts A, B, C, and D. Chart J is printed from drawn litho plates in black, red, blue, yellow, pink, light blue, and gray, each ink being toned with its complementary color.

In addition there is a color chart showing the effect of six different blacks on overprinting colors, which "stresses the importance of adding a color to the black in every case." The chart also has a section showing two colors overprinted, and one showing three colors overprinted.

"Color Printing" is published in England, and may be secured through THE INLAND PRINTER book department.

PRINTING AND PROMOTION HANDBOOK, by Daniel Melcher and Nancy Larrick, covers "How to Plan, Produce, and Use Printing, Advertising, and Direct Mail." The book is arranged in encyclopedic form for quick reference, starting with "author's alterations" and going through to "zinc engraving." Cross references are given liberally, adding to the book's usefulness.

The authors state that the book "has been written for people—including beginners—who have to buy printing and direct-mail services; for people who have to plan or prepare advertising, publicity, or information material of any kind, from covering letters to bound books; for anyone, in fact, who attempts to influence others by the printed or duplicated word . . . " The book, however, contains much information, in definitions and in descriptions of processes and so on, that it should be found helpful to those in the printing field.

"Printing and Promotion Handbook" is priced at $6.00 a copy, and may be ordered from this department.

APPLIED LETTERING AND DESIGN, by Rand Holub, has been prepared with a view to making it useful not only to the beginner, but also to the more advanced worker in lettering and design. The author starts with the selection of materials—inks, colors, pens, and so on. Then he goes into procedure, determining the height of the lettering, blocking in words, and other phases of the work, following with technical hints.

Following with remarks about type the author shows several pages of type specimens, then takes up scripts, cartoon letters, then interpretation, or interpreting an art director's rough layout or "visual." In connection with the latter, the author shows reproductions of layouts with finished lettering as done to fit those layouts.

Book jackets, logotypes, and letterheads, with two pages of definitions, complete the book. Profusely illustrated, most of the lettering examples being done by Mr. Holub, some of them especially for this book, this work should be a source of inspiration as well as study for those taking up or actually doing lettering.

"Applied Lettering and Design," by Rand Holub, seventy-nine pages, loose-leaf bound, is priced at $2.75 a copy, and may be ordered through THE INLAND PRINTER book department.

PHOTOGRAVURE MACHINE PRINTING, by H. Briskeborn, is a working manual that covers machine room practices, methods of correction, ink and paper problems, and modern photogravure printing machines. This book has been recently published by Sir Isaac Pitman and Sons, Limited, of London.

In addition to the text there is a color chart that defines color harmonics and special chapters by Percy Atkins on "Copper-Plate Printing—the Historical Basis of Photogravure," and by Hugh Griffiths on "Solvent Recovery."

The manual itself is printed in photogravure and furnishes the machine side of photogravure in such a way as to inform experienced printers as well as potential pressmen regarding modern photogravure presses of British manufacture.

Besides providing a comprehensive study of machine-room practices and an understanding of the supplementary processes involved in making the printing surface, the book suggests many remedies to the difficulties which arise in the course of printing.

"Photogravure Machine Printing" may be secured through THE INLAND PRINTER'S book department.

ART DIRECTORS ANNUAL *of Advertising and Editorial Art.*—This annual is now in its twenty-seventh year, and this volume presents the reproductions from the annual national exhibition of advertising and editorial art shown last year by the Art Directors Club of New York.

Following the introductory material, the volume is divided into four sections: *First*, design of complete advertising unit, which covers magazines, trade periodicals, newspapers, small ads, booklet and direct mail, car cards and posters, and point-of-sale display. *Second*, advertising art, covering general illustration, product illustration, fashion and style, humor, continuities, cartoons. *Third*, design of complete editorial unit, covering magazines and house magazines. *Fourth*, editorial art, including general illustration, fashion and style, humor, cartoons, caricatures.

Students of advertising as well as seasoned practitioners will find this annual an excellent source of reference for inspiration and for ideas pertaining to advertising art and typographic treatments.

"The Twenty-seventh Annual of Advertising and Editorial Art," at $7.50 a copy, may be ordered through THE INLAND PRINTER book department. We regret that we are unable to accept COD orders on the books reviewed in this department.

Printshop without a Proofreader

I just read a four-page house magazine published by one of the outstanding manufacturers in the field. It is an engineering pamphlet designed to keep the public informed of the newest developments in research. No specific mention is made of the manufacturer's product except for an advertisement on the last page. The text is high-quality, straightforward technical data written to attract wide relationship.

Imagine my surprise to find, in every instance in which the term was used, the possessive pronoun spelled *it's*, rather than *its*. In another place there was mentioned a "tube compliment," referring undoubtedly to the selection of a radio tube to do a specific job.

This little publication is a good-will builder and good will gained or lost depends on attention to little things, even things this little. Let us suppose that the engineer who wrote the text is an expert in his field and reported his findings accurately and well. Let us further suppose that his copy went to the printer containing these errors.

Did the compositor note these errors? Did he query the author on them? Evidently not. It is almost beyond belief that no one questioned the spelling of the possessive case of the pronoun (which appeared ten times in the article). Obviously, the printer faithfully followed copy. If his copy matched the submitted copy it will be argued by some that he did a good job.

But did he? If that were my magazine, I would call the printer and ask him to give me the benefit of his wide experience with language. I would inform him that I would expect from his organization more than a mere robot repetition of copy from a typewritten form to a letterpress form. I would tell him that while the error in the text was mine I was going to expect advice, help, query, and suggestion from him on points which might make me appear unfavorably in the eyes of readers.

Psychologically, the reaction of many readers would be to question the accuracy of the presentation of technical data when simple errors in spelling abound in the printed text, and there is a display of ignorance of the homonyms compliment and complement.

One feels certain that this printer does not have a proofreader and that he himself is not a good proofreader. If he does not mend his ways, he will get less and less of the kind of business he needs.

—By David T. Armstrong

BY

Forrest Rundell

● A RECENT letter from a reader asks: "How is the average printing salesman compensated?"

Well, brother, as far as the "average printing salesman" is concerned "there jist ain't any sich animal." The number of printing plants in the country runs far into the thousands. Over 4,000 are in the greater New York area alone. And it is safe to say that no two of them have exactly the same selling problems. Furthermore, salesmen within the same plants differ in their methods and in their selling approaches. These differences in plant methods and in personnel are so marked that it is virtually impossible to strike an average that would be fair to all concerned. For this reason the matter of a salesman's remuneration is almost always a matter of individual matter which must be negotiated between salesman and boss.

Some general principles apply to all such negotiations, however, and it may be worth while to discuss them. To begin with, the employer must pay the salesman a living wage with prospects of increase as the salesman progresses. We say *must* because if the employer does not pay as much as the salesman can earn elsewhere, the salesman will not work for him, and no employer is going to get very far without someone to sell his product. The printing industry as a whole suffers because many qualified young men go elsewhere, thinking their chances for adequate remuneration are better in some other branch of the graphic arts or in some other field. The printer-boss who wants salesmen as good as those in other industries must be prepared to offer as good a job as the other industries.

On the other side of the fence, the salesman must be prepared to earn his salary by delivering the goods. Printing is a fiercely competitive industry and a salesman is not an investment unless he is able to pull his own weight.

Let us look at some figures which may be of use in determining a basis for the salesman's remuneration. The usual rate for general commercial printing is ten per cent on the selling price. This rate includes servicing the account, in all the term implies. It also includes some creative work plus practically all work which is handled without estimate. Many specialty houses, such as calendar printers, have found the ten per cent rate an equitable one.

The ten per cent rate can sometimes be upped to fifteen in the case of a "super-dooper" creative job. Here the salesman adds a service for which the customer might ordinarily go to an advertising agency. Such cases are rare, however, in the competitive market.

Going the other way in the scale, we look at the field of form printing. Here the competition is really stiff. Few form orders can be loaded with ten per cent selling commission. It is hard enough to get form work at five per cent for the salesman. Five per cent is reasonable compensation for the salesman who goes after this type of work.

"Get What You Can" Method

Even more competitive is publication work. The house must cut every corner possible to keep its prices in line with those of competitors. And the salesman must expect a smaller remuneration per order, too. He will make it up on the repeat orders that come in every month (or week as the case may be). Three per cent is the rate commonly paid by many plants that specialize in publication printing.

One other rate needs consideration. That is profit sharing, where the owners share with the salesman all proceeds over the actual cost. Usually this is a fifty-fifty split but the agreed-on division may be in different proportion. But, and the writer expects some printers to roar at him for saying it, this is a dangerous method for establishing a price. We say dangerous because printers and salesmen are human. And being human, the profit-sharing method tempts a charge based on what the salesman thinks he can extract rather than on what the job is worth. We don't say this always happens; we simply say the temptation is there. Overpricing is dangerous because the customer must be kept in ignorance of what is going on. And it is likely he will take his business elsewhere if he finds out what happened.

Furthermore, it puts the printer in the position of abandoning the single-price policy in which each customer pays in proportion to the work done. This get-what-you-can method of merchandising was prevalent until the middle of last century when John Wanamaker started selling at one price to all. Since that time, equal price for equal service has been the policy of all successful merchants. You can go into any department store and be sure of getting the same price on a suit as your neighbor who came in at the same time and asked about the same suit. Profit-sharing between salesman and printing house is dangerous because it tempts a salesman to go back a century or more in his business policy and methods.

Reasons for Standard Rates

Having indicated some of the standard rates of pay, let us go a little deeper into the reasons therefor. Let us start with the ten per cent rate which is the basis for general printing. On a job secured without price it is fair to both the printer and customer because it is the expected rate. It is easily figured. The printer takes his shop costs plus outside purchases and adds twenty-five per cent. This, figured on the selling price, gives a profit of twenty per cent. Divided equally between the salesman and the house, this amounts to ten per cent for each. This is a fair proposition all around provided the salesman does the full amount of work

A♥

Playing Cards

Playing cards were probably introduced into Europe from either India or China, presumably by the Moslems. These playing cards were hand painted and very expensive. An improvement on this process involved the use of stencils which helped to increase production and decrease cost. Still later they were printed from blocks and colored by hand in a manner similar to one modern method of making block prints, especially in schools of printing for beginners in the art.

—David T. Armstrong

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which is customarily required to handle a single ordinary order.

When we come to forms, the situation is somewhat different. Generally these involve much less work on the part of the salesman than does an order for sales material, especially if the latter involves creative work. Repeat orders for forms require little or no work from the salesman. Usually the purchasing agent simply sends in an order to repeat the last printing of form number so-and-so and the production department handles all the details. The salesman merely collects his commission. With the salesman doing less work than on orders for general printing it is logical that he be paid less. This occurs particularly in plants that are hooked up for form printing to the exclusion of general work.

A similar situation occurs in the plants which specialize in publication work. Granted that the first order (or the contract) frequently involves a great amount of hard selling, issues after the first are nearly always so much velvet. A monthly or weekly publication soon settles into a groove and requires very little attention on the part of the salesman. When something goes wrong or the question of pricing comes up, the salesman's services are needed. Ordinarily, the production man of the magazine simply calls up when his copy is ready and the production department in the shop takes over from there.

Is Commission Earned?

On jobs which seem to warrant more than a ten per cent commission, stop and think. Remember that the customer pays the commission. Have you contributed more than ten per cent to the value of the job through extra services? You may have contributed some extra sales idea. Or you may have furnished copy or art work which the customer might otherwise have bought outside. Maybe you sat up nights to get the job through on time without slighting quality. In any event, before the extra commission is tacked on, the salesman needs to examine the job very carefully to make sure that he has added enough to its value to have earned the extra charge.

A consideration likely to come up in any discussion between management and salesmen is the value of the prestige of the house. Some long-established printers have built up so much prestige that orders have a tendency to gravitate to them. If the salesman is assigned the task of following up accounts which are ready to buy of their own initiative, his selling task is relatively light. With the house contributing much of the sales work it need occasion no surprise if the boss suggests the selling may warrant a slightly lower rate than "cold turkey" selling. This is especially true when the house turns over accounts to the salesman. It also arises in the handling of house accounts established by one of the owners on which he has asked the salesman to do the leg work.

Then there is the problem of advertising. If the printer is an active advertiser the advertising does some of his selling work. This is not so much a matter of making the actual sales as it is in helping salesmen. The printer who advertises consistently incurs expense in so doing. Having smoothed the salesman's path the printer has some reason for thinking that the expense of advertising should come out of the money available for paying commissions. There is no universal answer to this one either.

This discussion may seem a little indefinite in spots. It is meant to be. With conditions varying so much it would be unfair to one side or the other to assume that every case could be handled in the same way. As one owner said to the writer, "I try to pay ten per cent on all sales. Then comes a case where the salesman puts in a lot of creative effort on a first order from a customer where he is trying to establish an account. Ten per cent does not begin to compensate the salesman for all the work he has put in on the order. What shall I do? I want that account as much as the salesman, yet on the selling price he has not even earned ten per cent. It seems to me that I have to allow a lot of room for flexibility."

Work Out Individually

So, to those who have been sufficiently interested to write in for information, the writer can only say he hopes this brief discussion may contain some useful ideas. After all it is a difficult problem working out the best way of paying a printing salesman. It must be a matter between the boss and salesman to get together and work out the most satisfactory method of meeting the circumstances. We wish you luck.

And don't forget. In the final analysis it is the customer who pays your commission. The more valuable you make yourself to him the more commission you will earn.

Von Hoffman Press, St. Louis, has issued a bulletin to house magazine editors and publishers to remind them that libel and copyright laws apply to employe publications the same as to magazines and newspapers of general circulation. So be careful about getting reprint permission, giving credit where credit is due, and call no names, unless you want to prove it in court.

QUESTIONS IT'S A QUIZ

Answers to the following questions have appeared in the pages of THE INLAND PRINTER and other sources of information to printers at various times. How retentive is your memory? How many of these questions can you answer without looking at the answers on page 76?

Match the kind of photo composition listed at the left with the correct principles involved listed at the right:

1.	Rotofoto	a.	Intertype keyboard
2.	Artype	b.	Ludlow-style assembly
3.	Fotosetter	c.	Monotype characters
4.	Hadego	d.	Monotype keyboard ribbon
5.	Lithotype	e.	Acetate characters

6. One of the following is not a platen press:
   a. Kluge
   b. Chandler & Price
   c. Kelly
   d. Thomson-National

7. What two processes are used in offset-lithographic platemaking?

Match the term listed at the left with its partial meaning listed at the right:

8.	Chalk overlay	a.	Mechanical shading
9.	Ben Day	b.	Page number
10.	Folio	c.	Mechanical makeready
11.	Gutter	d.	Monotype caster part
12.	Wedge	e.	Margin

13. Give the name of the brothers who invented the first practical paper-making machine.

14. When book signatures are folded so that the pages, not necessarily the paper, line up, it is called "folding to_____."

15. Early French printers were:
   a. Mentelin
   b. Han
   c. Ruppel
   d. Friburger
   e. Estienne
   f. Jenson

By R. Randolph Karch

Why Wickersham Wanted One-Floor, Straight-Line Layout

By RANALD SAVERY, EASTERN EDITOR

• A ONE-FLOOR, straight-line plant layout located far away from New York City's congested areas, but conveniently close to customers and suppliers, is the enviable setup recently achieved by the Wickersham Press, Incorporated. The move to Long Island City, just a few minutes' travel from the Grand Central section of Manhattan, was completed on June 1.

Wickersham, established in 1920, had been housed for ten years in a building in the mid-town, east side neighborhood of Manhattan, where it occupied one floor and part of another. During that decade, growth of the firm's business, and installation of larger, heavier color rotary presses, created problems that could not be solved satisfactorily without expansion. Traffic conditions interfered with efficient loading and unloading; structural wear and tear due to operation of heavy equipment; lack of additional available space in the same building—these were among the chief factors which made a move not only desirable but almost a practical necessity.

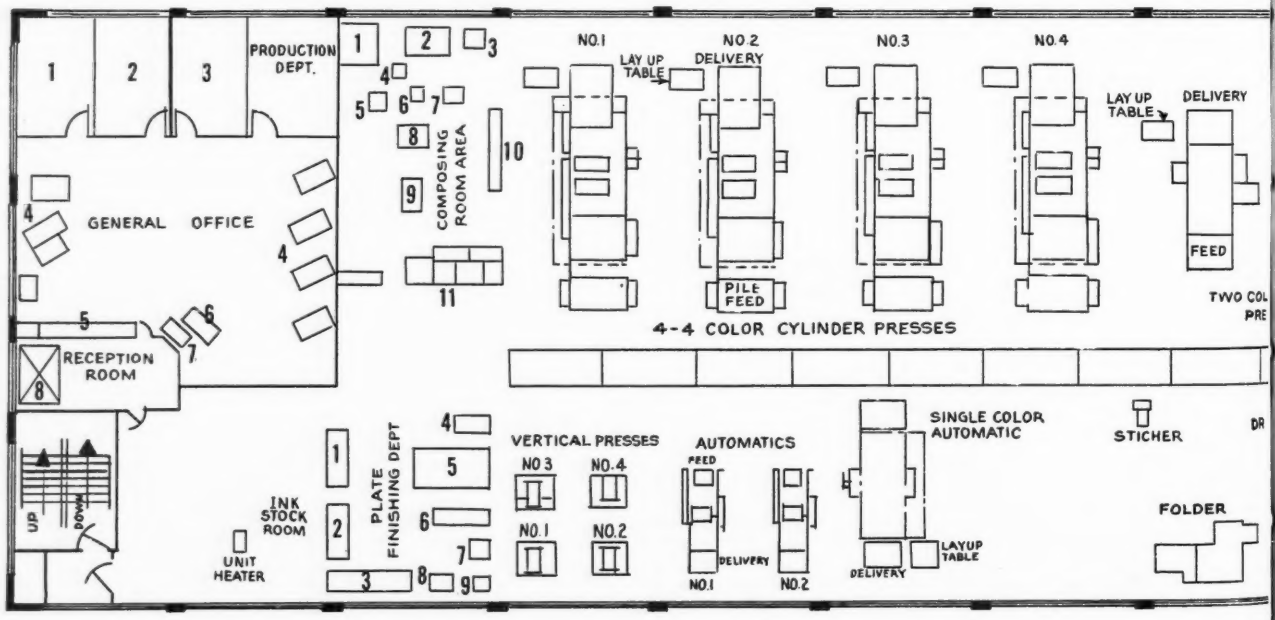
Search for a new site was marked by considerations of permanency, accessibility, and also facilities for possible further enlargement in the future. The new location fits all of these requirements. It consists of the entire fifth floor of a six-story building, surrounded by ample space for car parking and outdoor lunchtime recreation. It enjoys excellent truck-loading facilities, and is near a railroad siding, the latter of not too great importance to the plant.

Dimensions of the plant space, including the office, are 328 feet long by 75 feet wide. There are windows all along two sides and at one end. There is a passenger elevator at the front, and two good-sized freight elevators about two-thirds of the way down the length of the building. Rest rooms are situated between the freight elevators.

That is the bare-wall skeleton on which the plant layout was imposed. As is always true, equipment, kind of work done, the way in which the work is handled, and company policies, all had a place in the scheme. Wickersham is a job house, doing a great deal of color printing. Bulk of its work is advertising and promotional material—booklets, brochures, annual reports, counter cards, display sheets, and house magazines. It does no typesetting and practically no page makeup, the composing room being used for lockup. In the old building, the bindery facilities were confined to a cutter and a shipping room, but with the move, this department has been expanded, although the majority of the binding will continue to be done outside. Total employes number about sixty.

Emphasis on presswork simplified the layout to some extent, enabling the company to take full advantage of the oblong shape of the floor. The complete layout was the result of the combined brain work and experience of president Daniel Moscow, plant superintendent Harry Burmester, and the president's son, Herbert, a Carnegie Tech printing grad who is in the sales end.

What they had to allocate were the following departmental units:



Office and production; composing room; plate finishing (considered highly important because of the large amount of quality work); job presses; one- and two-color cylinders; two-color rotaries; bindery and shipping; ink room; cut room; paper storage. In addition it was

desired to set aside space for future installation of press equipment.

Front of the building, adjacent to the passenger elevator, was the obvious spot for the office. The small elevator hallway was separated from the office by a wall of glazed glass, with the conventional window providing visitor access to the receptionist. Office quarters are almost square in dimension, and take up about 2,000 square feet. Open space in the center contains desks for the office manager, bookkeepers, payroll and control clerks. Executive offices are ranged along the far side, housing Daniel Moscow; Leonard Jacoby, Jr., vice-president; Herman Toback, sales and advertising; and Herman Brauer, production manager.

Going through the door into the plant, there is a straight-line sweep of presses in two rows, separated by a wide center aisle. This is the main passage and hand-truck thoroughfare. The presses fit comfortably into the double rows, surrounded by plenty of working and piling space. Delivery ends face the large windows at each side of the room.

Across the front end of the plant room, before you come to the presses, and adjacent to the office, are the composing room, the plate finishing department, and the ink room. The composing room, with its two stone tables, plate racks and registerscope, is on the left-hand side; the plate finishing quarters are on the right-hand side; the ink room is in an "L" extending toward the front beyond the plate finishing department.

Direct contact between the production department and the mechanical departments is maintained via the composing room. A slide window in the back wall of the production office opens right into the composing room, where the job envelopes and other working records are pushed, to be picked up by the foreman.

The rows of presses begin back of the composing room on the left, and back of the plate finishing department on the right, without partitioning. Job presses and one-color cylinders are on the right; color presses on the left. First group on the right consists of four 13¼ by 20 inch Miehle verticals; beyond them are two 22½ by 28½-inch Number 1 Kellys; then a 28 by 41-inch Number 41 Miehle. After that comes the bindery and shipping department with two Seybold cutters, a Cleveland folder, a wire stitcher, and a puncher. Continuing down that side of the room you come to the freight elevators, the rest rooms, and, clear at the back, the cut room.

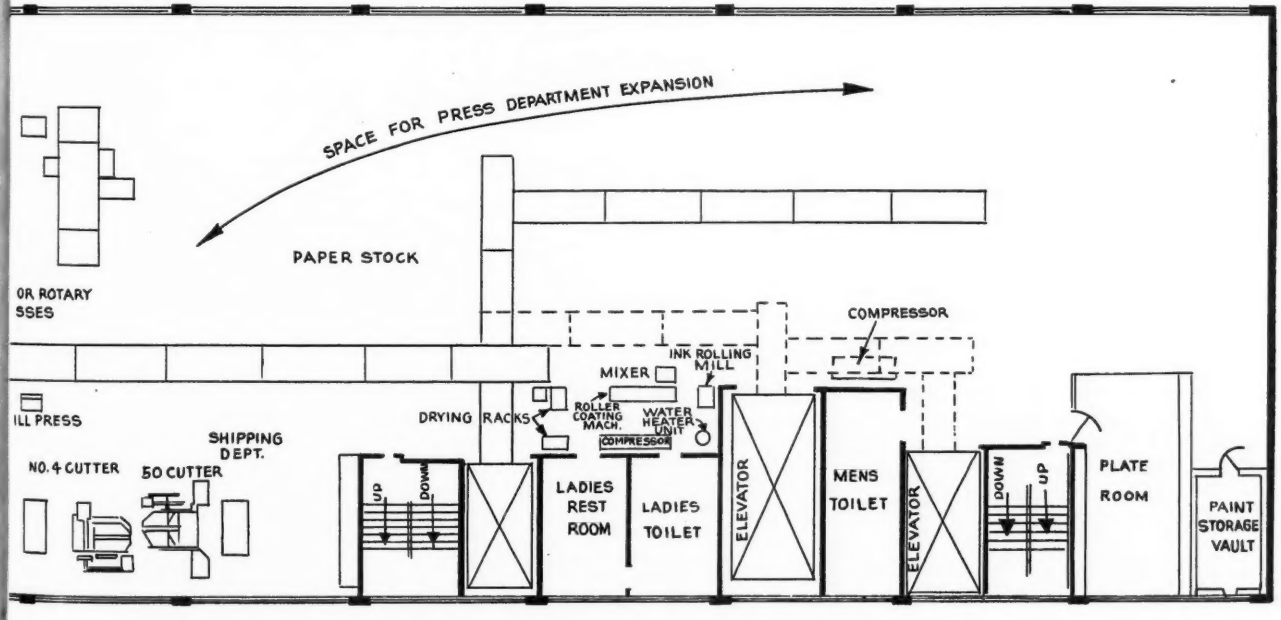
Starting at the front on the left, there are ranged four 32 by 46-inch Number 46 two-color Miehles; then two 48½ by 36¼-inch Cottrell two-color rotaries. The space on the left behind the rotaries, extending to the back wall, and directly opposite the freight elevators, is used for paper storage, with enough vacant area left over for equipment expansion.

There are several key points of practical reasoning involved in location of the various units, particularly the ink room, the cut room, and the composing room. Why, for example, is the composing room separated by the length of the building from the cut room, and why is the ink room up front, instead of back by the presses?

These are the answers:

The cut room functions more as a storage room after press runs than it does as a "live" adjunct to the composing room. The great bulk of the work is done from electrotypes. (Particularly in the case of the rotaries, plates are delivered in printing forms that are routed directly to the presses without touching either the composing room or the cut room.)

After printing, plates are stored, pending instructions from the customer. Often they are held for reruns; sometimes pages or halftones are pulled out of forms to be used in another job for the same customer. Frequently the printed material is part of a promotional or advertising campaign consisting of several different units, where portions of the different jobs are interchangeable. The cut room, therefore, with its detailed system of records, operates almost as an independent department, close contact with the composing room being of secondary importance. Its location at the back



ABOVE. General office: 1, 2, 3, private offices; 4, desks; 5, files; 6, mailing table; 7, switchboard. Reception room: 8, elevator. Composing room area: 1, lineup; 2, big stone; 3, saw; 4, unit heater; 5, rack; 6, 7, furniture; 8, small stone; 9, registerscope; 10, knife board and type case; 11, base racks. Plate finishing department: 1, saddle bench; 2, layout table; 3, work bench; 4, lathe; 5, proof presses; 6, jigsaw; 7, drill press; 8, router; 9, locker

also gives it direct accessibility to the freight elevators.

Placing the composing room at the front serves a double or even triple purpose. For one, the location provides direct contact with the production department. And for another, it is near the plate-finishing department and the job and cylinder presses, rather than the rotaries.

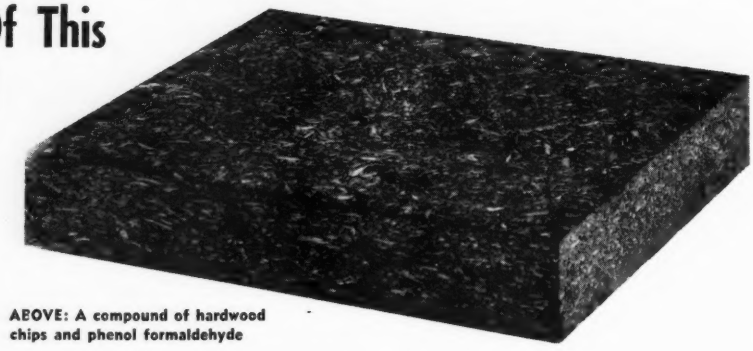
The ink room, like the cut room, is a carefully operated department. It is placed up front for easy contact with the office on records, orders, and so on, and to keep close control over use according to customers' specifications and on the particular job for which each ink may be intended. Casual use of the ink room for indiscriminate sampling and mixing is discouraged.

The over-all layout is clean-cut and simple; predicated, as all good layouts have to be, on the equipment, amount and dimensions of space, and kind of work done by the plant. Not many printers are fortunate enough to have a one-floor, straight-through area to work with; nor is it safe to generalize too much on the efficiency of this or that kind of layout. There are too many individual factors to be considered.

However, there is one set of guiding principles that can be stated, which Wickersham carried out. They are: Know, in a general way, what you want in the way of space; look for it; be patient until you find it, or a close approximation; then plan the layout with careful consideration from all points of view.

Tests Prove Worth Of This Substitute For Wood

By JOHN T. WRIGLEY



ABOVE: A compound of hardwood chips and phenol formaldehyde

● FOR MANY YEARS, the letterpress printing industry has searched for a suitable substitute for wood for the mounting of plates. There has long existed a need for a material as workable, strong, less susceptible to warping and twist and, especially, not more expensive than the hardwood blocking lumbers now used.

In the search for a better plate base, many substitute materials have been tried. But most of these have been unsatisfactory for one reason or another. The mechanical (patent) base and the solid metal base are about the only practical substitutes for wood so far discovered. Both of these, however, have disadvantages which make their use less flexible than blocks. And in all this time of seeking a better mounting material than wood, the unhealthy condition of costly excessive makeready time, due to faulty wood bases, has existed in letterpress printing. The need for a blocking material more reliable than hardwood lumber has existed for more than a generation.

In the past, many unsuccessful attempts have been made to mold wood chips, mixed with glues and other compounds, into slabs suitable for the mounting of printing plates. But during the past year, with a substance used in manufacturing war materials, this idea of making a substitute for good wood has finally been developed successfully.

The new mounting base, which has been named Sta-Rite, is a compound of hardwood chips and phenol formaldehyde (a thermo-setting binder). This compound is molded under pressure and heat into slabs approximately 1¼ inches thick. The slabs are then surfaced to the desired thickness on a precision machine and cut to standard widths and lengths of approximately 12 by 30 inches and 15 by 30 inches, or larger upon order. A great deal of care is exercised in surfacing and testing this material to insure a smooth, even height throughout.

While this mounting material has been under shop test in several engraving plants for over a year, the manufacturer has this year had a laboratory test made, the conditions and results of which follow:

1. Under lead-molding pressure (approximately 6 tons per square inch), the base had passed its elastic point but did not collapse. Lumber collapsed at approximately 4-ton pressure per square inch while the new base gave in thickness approximately 1/32-inch.

2. It required approximately four more pounds of pressure to drive nails into the base than into hardwood lumber. An approximate additional six pounds of effort was necessary to remove nails from the base than from the ordinary blocking lumber.

3. On exposure to such solvents as benzine, benzol, gasoline, kerosene, and lye, the new material was not affected.

4. In the direction of saturation, it was found that the base will absorb at approximately one-half the rate of ordinary blocking lumber.

5. On a four-side pressure test, the fabricated base collapsed at 4-ton pressure while the ordinary hardwood blocking lumber collapsed at 2-ton pressure.

6. On a normal exposure to the elements test, a piece of the new base 12 by 15 inches and corresponding sizes of both straight-grain and end-block hardwood blocking lumber were used. After eleven days' exposure, it was found that both pieces of the blocking lumber had warped to the point of being almost unfit for use; the new mounting material had not varied .001-inch.

Because of the composition of the material (thousands of small wood chips bonded together under extreme pressure), the degree of natural resistance to planing knives should be far more even all over the surface than resistance exerted by either a single piece of hardwood or many strips of hardwood glued together to form a board. Since all lumber has its hard and soft areas or grains, the resistance it exerts to planing knives, saws, and other cutting tools is far from uniform. Because of this uneven resistance, waves of uneveness on the planed surface, regardless of their minuteness, show up as high and low spots in a printing plate on the press. This is a point that is little realized in efforts to surface wood blocks to an even height throughout. The new composition mounting material, being devoid of grain, should surface more evenly than hardwood lumber.

The Inland Printer's

Specimen Review

By J. L. FRAZIER

Mark for the attention of this department printed items on which you desire criticism. Send in a flat package; do not roll. We regret that personal replies cannot be made by mail

FELCO LIMITED, Durban, South Africa —Samples of process color printing you did for the different drug concerns is excellent, equal, in our opinion, to the best done anywhere. Congratulations.

THE JACKSON PRESS, London, England —Announcement of your vacation shutdown, "Ten Days of Saturnalia," in dull blue on goldenrod is striking. Layout is characterful, in fact the only fault of note is that lines are too closely spaced.

HOWARD FRANKLIN, Morrison, Illinois —Your blotter, "Printing," done in deep gray (blue tone) and rose is of interesting design. A weakness is printing small type (calendar) in the rose over a band of parallel rules in the gray along the left-hand side. Text is quite readable in the Garamond type, not only because of the clarity of the style but because the lines are rather widely spaced, the style being suitable for that.

THEODORE JUNG, Denver, Colorado—You have made a striking improvement in the dress of the magazine, "Southwest Review." The former style is readable enough and possibly of average appearance quality-wise but old-fashioned, the cover especially. Being so like the general run-of-mine work we see all around us, it is lacking in interest, also impressiveness. In contrast, your modern cover design is not only up-to-date but has distinction; with its forcefulness, it arrests the eye and says "here's something interesting." Congratulations on an important job well done.

SUN PRINTERS, LIMITED, of Walford, England—Your two brochures in pockets within a folder titled "Fine Upper Leathers in Fine Shoes" are most interesting. The blind embossing on the cover is arresting and bespeaks the leather craftsmanship illustrated in the booklets. While the upper line on the cover appears a little weak, particularly against a dull yellow background, color work and typography (of top-drawer quality) throughout the brochures are in sharp contrast. Your graphic arts craftsmanship is as excellent as your clients' in leathers. May we hear again from you, soon.

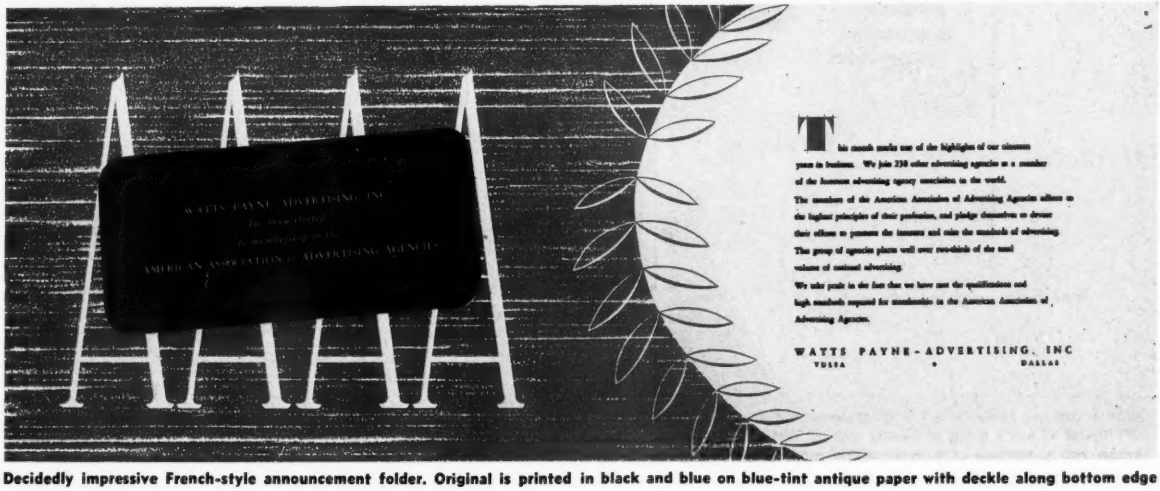
O. E. BOOTH, of Des Moines, Iowa—You have handled the Thorean essay, "The Beauty of Nature," in a beautiful manner as a keepsake booklet. The extension cover of heavyweight deep red (wine) deckled edge stock is very attractive with the title in black and red matching cover paper on a pale blue label tipped on near the top. Blue string matching the label paper is tied through the fold. Composition of text pages is in the beautiful Bewick roman and a small illustration by Thomas Bewick appears near the top of first page of text. With type pages proportional to paper pages and marginal spaces also of excellent proportions, the lines of type rather widely spaced, the effect on antique white paper is really beautiful.

KEYS PRINTING COMPANY, Greenville, North Carolina—Your blotters are both interesting and striking. Most unusual is the one on which a reverse plate about three-fourths the width of the blotter is printed in black. Reversed are lines of signature at bottom and to right and open keyhole slantwise near upper left corner. A halftone, presumably of your plant and cut to shape of keyhole, appears in light blue within the cut-out space of the black plant. The things you do are listed on right one-fourth of piece in reverse color bands printed in the blue, used also for your trade mark surmounting these bands. Another of your blotters is reproduced in this issue. It speaks for itself. Send us more samples of your fine work, maybe some done for customers.

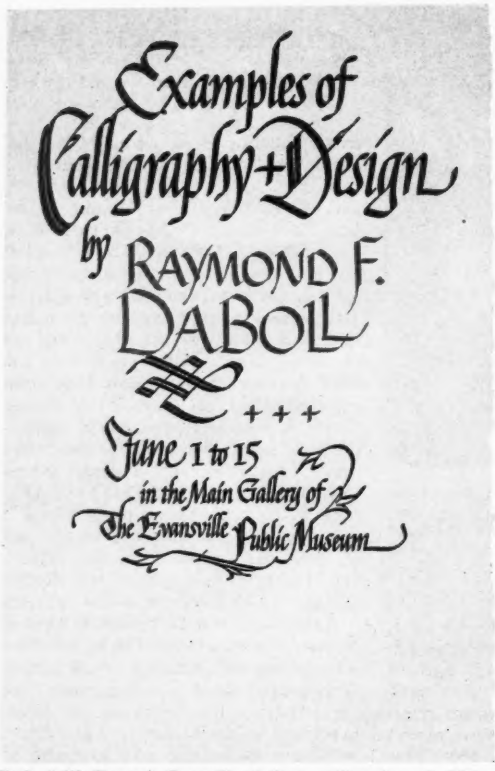
THE A. B. HERSCHFELD PRESS, of Denver, Colorado —The brochure announcing

TARGETS AND TRUSTS
Your immediate concern is to safeguard the assets and extend the operation of your estate for the fullest benefits to your heirs and beneficiaries. When you name the OLD National Bank as executor and trustee, you secure the competent and experienced administration necessary to protect and continue the efficient management of your estate.
Estates of any size can profit from the many services applied to them by the OLD National Trust Department. This organization provides informed and responsible direction to the plans you set up as the target for the terms of your will. We suggest a confidential discussion of the details between you, your attorney, and the OLD National Trust Officers, Mr. Melburn G. Bergen and Mr. John D. Clark, Jr.
OLD NATIONAL BANK
Established in Evansville in 1854
MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

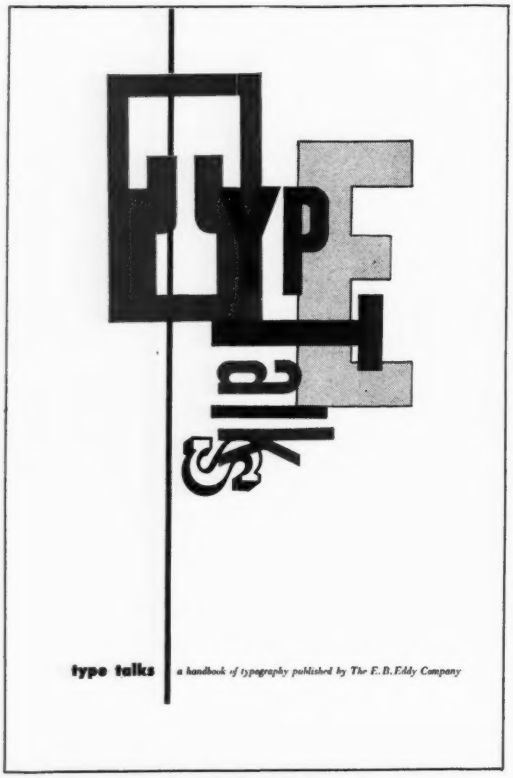
One of a series of 8½- by 5½-inch mailing cards by Herbert W. Simpson, Incorporated, Evansville, Indiana. Original in black and green on white stock



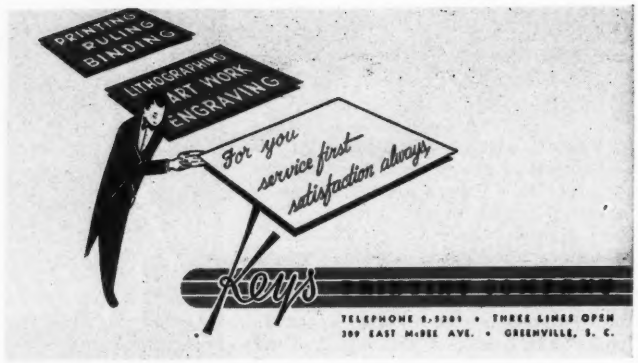
Decidedly impressive French-style announcement folder. Original is printed in black and blue on blue-tint antique paper with deckle along bottom edge



Herbert W. Simpson, Evansville, Indiana, calligrapher of ability, in all probability executed this folder title announcing exhibit of the work of one of the world's leading craftsmen in lettering. The original is 6¼ by 9¼ inches and is printed in a most suitable red and black on rough ivory stock deckled along right side



Quite a contrast between this booklet cover and piece above it, isn't there? If not a thing of beauty and joy forever, it is clever though and something of a decipherable puzzle that will command attention. One of those things more occasional the better



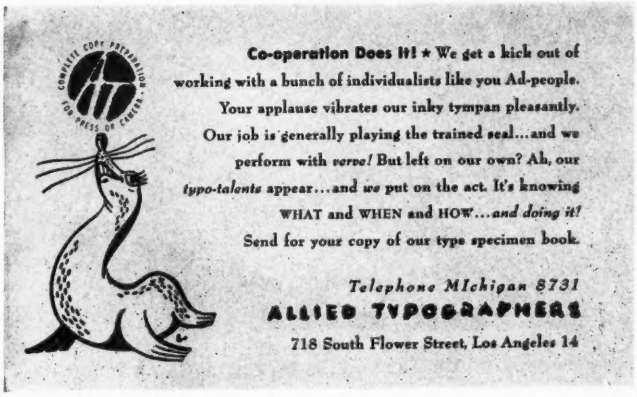
This good printer has hit upon a graphic way to present his "line." Design of the piece is excellent, we think, but we feel our red better than the original's deep blue

the opening of your new and impressive building is deluxe. The 8½- by 11-inch cover on double-thick rough white stock with deckled bottom edge is both dignified and impressive. Entrance to the new plant is blind-embossed near the top of page, a device which makes printing look the part of quality. We'd prefer the page if this were larger. Title is a long line of large outlined and shaded letters in brick red near the bottom. Size makes for importance, outline keeps line from being too blatant as line would be if in solid letters of the same size. Pages of text, smaller than the cover, are beautifully printed by offset. Accompanying booklet, "Enterprise Unlimited," also offset printed, is also high-grade and impressive.

MURELES PRINTING COMPANY, of El Paso, Texas—"Keep the Lights Burning" is an attractive booklet. Title in two lines of decorative type appears between 6-point rules bleeding off at sides all in brown. Above and below the band a leaf pattern design *a la* wall paper (reverse color) is printed in silver. Green instead of silver would represent a better color combination with the brown ink and especially in view of the goldenrod-hued color of the stock. The four pages of text on white paper develop the thought of the title to promote continued advertising. The second color on these pages—which, by the way, matches the hue of the cover paper—is too weak for the single line of type printed in it on page 3. There is not enough tone contrast between the color of ink and the white pages. Even so the piece rates high.

TRADE PRESS TYPOGRAPHERS, of Milwaukee, Wisconsin—Your series of letter-size folders "Journeys Through Typeland" represents the finest advertising for a trade compositor or advertising typographer we've seen in a long time. Front page of each, featured by a large halftone illustration of a shop scene, contributes impressiveness and interest, and, besides, acquaints customers with the functions of your business and at the same time indicates fine equipment and modern methods, these latter qualities strengthened by block of text beneath. Emphasizing your versatility in layout, each front page is quite different. Center pages in each piece are devoted

Title page of folder by a New York City printer long known as one of nation's best

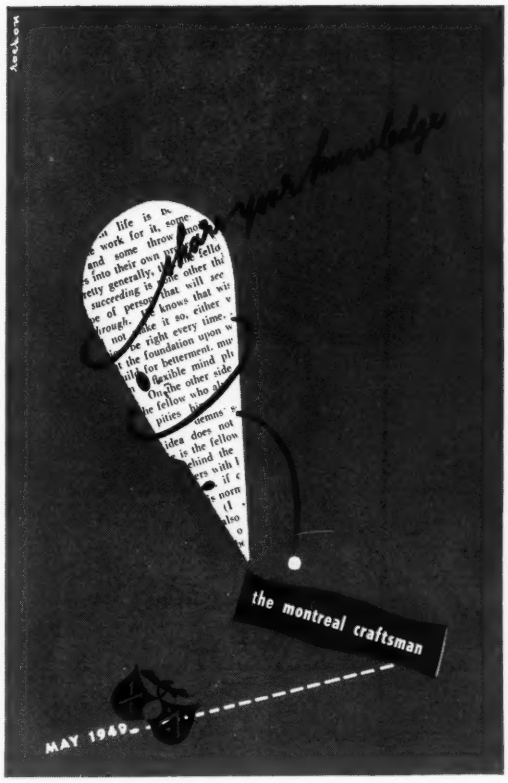

Co-operation Does It! ★ We get a kick out of working with a bunch of individualists like you Ad-people. Your applause vibrates our inky tympan pleasantly. Our job is generally playing the trained seal...and we perform with *verve!* But left on our own? Ah, our *typo-talents* appear...and *we* put on the act. It's knowing WHAT and WHEN and HOW...*and doing it!* Send for your copy of our type specimen book.
Telephone MIchigan 8731
ALLIED TYPOGRAPHERS
718 South Flower Street, Los Angeles 14

One of a long series of advertising items utilizing obverse side of Government post card—the illustrations of which compel attention. Originals in brown and light blue

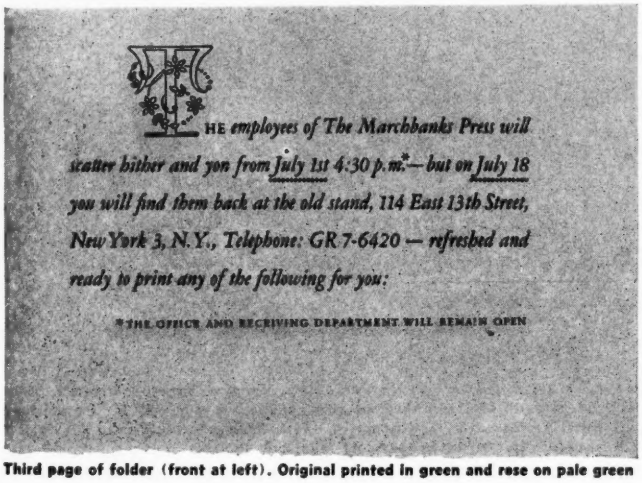
to display of some of your types —you have the best—and carry not only alphabets (or parts of alphabets in the case of larger sizes) but examples of a printed piece featuring the particular styles. In all cases the back page is devoted to a group showing of actual work done for prominent customers. The presswork is top-grade, too.

STERLING TYPOGRAPHERS, Chicago, Illinois—Your new type book certainly makes a good showing for the wide range of type faces for all purposes which you have available in your plant. Being in loose-leaf form, too, is a great advantage in making additions when new type faces are added. The copy-fitting gauge at the top of each page is an excellent idea and should prove helpful to those trying to determine which face to use to fill a given space. Book is in heavy covers, loose-leaf, 6½ by 9 inches in size. Each face and size is shown, first in a line of capitals, then a line of lower-case, and a line of figures. The text used for showing the faces, "Through the medium of type and the printed word, our thoughts are imparted," is printed complete at the top of each page, the line being broken by vertical rules every five characters, and the numbers, 5, 10, 15, and so on, are printed immediately below these vertical rules. By this means, anyone selecting a type face, knowing the measure of the space to be filled, can readily tell just how many characters of the type face selected will go into a line of required measure. It's a good book.

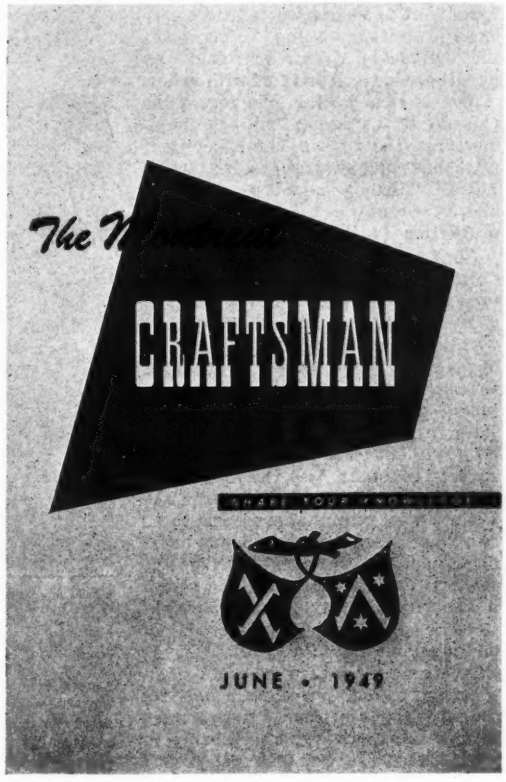
RICHMOND PRINTING COMPANY, of Stanford, Connecticut—You made a very definite improvement in re-designing letterhead of the Froelich Transportation Company, aside from your introducing second color which sparks the design considerably. The original is old-fashioned and the meaningless and unpleasing rule arrangement is a handicap upon the type, drawing so much attention to itself as it does. Lines of light-face roman at right beneath name are much too crowded. The green paper of the original is a shade which does not suggest quality—white of your job is much better—although it



The bulletin of the Montreal Club of Printing House Craftsmen is one of the best of its kind. Covers are of striking yet sane modern design and are invariably interesting as the two shown bear witness. The upper one represents an original and novel handling which compels attention. Red was second color of both


THE employees of The Marchbanks Press will scatter hither and yon from July 1st 4:30 p.m.*—but on July 18 you will find them back at the old stand, 114 East 13th Street, New York 3, N.Y., Telephone: GR 7-6420 — refreshed and ready to print any of the following for you:
*THE OFFICE AND RECEIVING DEPARTMENT WILL REMAIN OPEN

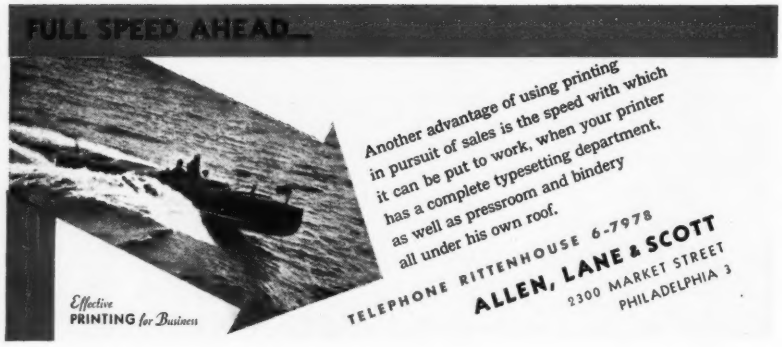
Third page of folder (front at left). Original printed in green and rose on pale green

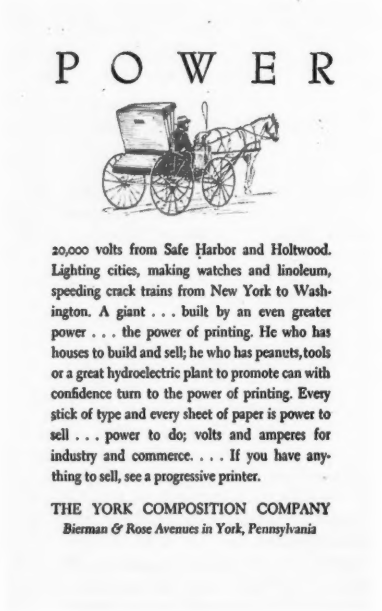


might have merit for a two-color piece with just the correct second color. Your design is up-to-date looking, following sound modern-design principles, and the name "Froelich" is very properly stepped up in size from the other words of the firm name. We regret to note the one fault with yours, and it is serious from a typographical standpoint. That is the extremely wide letterspacing of the lines just above and below the rule. The lines not only look very spotty but the words do not hold together as they should to be quickly grasped. The second, in smaller type than the first, is particularly difficult to read in view of so much space between the letters.

THE CAROLINA PRINTING AND STAMP COMPANY, of Wilmington, North Carolina—Your program booklet for the Optimist Club convention is striking and decidedly interesting. The feature which makes it of special interest is the octagonal shape of the piece, die-cut that way, conforming with the shape of the clubs' emblem. Design on the front is impressive but with printing in yellow the reverse lettering isn't clear. This is due to fact that yellow is decidedly weak in tone, value being most nearly white of any hue. The use of yellow might have been to match gold emblem but a yellow inclining to orange, chrome for example, would still suggest gold and make the lettering show up better. We regret use of three inharmonious types—a fancy roman, Old English, and a sans serif—were used and that one of the Old English lines was very noticeably letterspaced. That style of type is unsuited by its weight—it is sometimes called "black-letter"—to letterspacing. The cover of the banquet program in "gold" on purple suede stock and tied with yellow ribbon is rich looking. We regret the printing of the design isn't brighter—more like the ribbon. The effect is of tarnished gold. Short pages like the one headed "Menu" should be definitely above the center in the interest of both proportion (variety) and balance.

ALLIED TYPOGRAPHERS, Los Angeles, California—Your specimen book of type faces, showing only those faces in your cases at the time of printing, is well done and should bring you a lot of favorable comment. We feel that the spacing between the two words, "type faces," on the cover is too wide, especially in comparison with the space between both ends of the line and the edges of the sheet. Also, the yellow used for the monogram on the title page, the initial on the opening page of text, the two small spots on the "flexo-photo" page and the word "Index" on the contents page is too weak. The yellow is good for the bands down the right sides of pages, having the type names and available sizes over-printed in the good strong black, but we feel an improvement would have been made had the three pages mentioned been printed in a stronger yellow, or probably in some other more prominent color. This

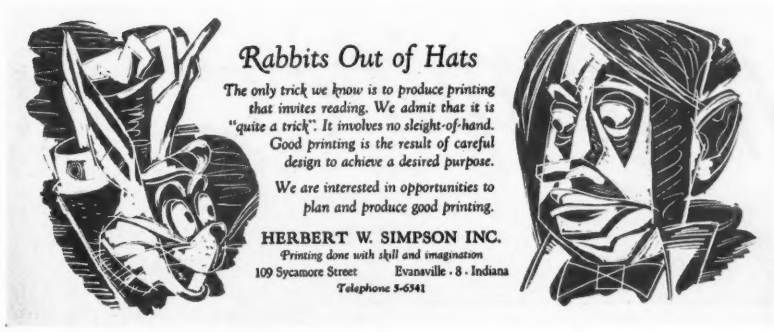

FULL SPEED AHEAD...
Another advantage of using printing in pursuit of sales is the speed with which it can be put to work, when your printer has a complete typesetting department, as well as pressroom and bindery all under his own roof.
TELEPHONE RITTENHOUSE 6-7978
ALLEN, LANE & SCOTT
2300 MARKET STREET
PHILADELPHIA 3
Effective PRINTING for Business

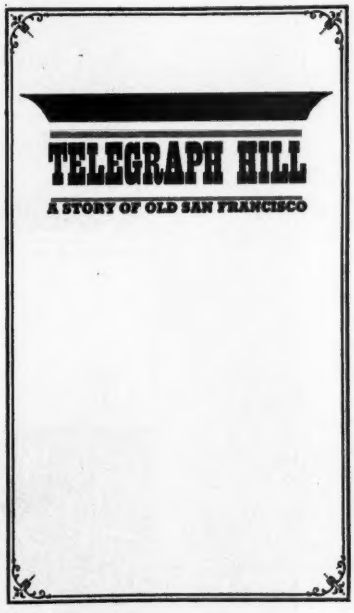

POWER
20,000 volts from Safe Harbor and Holtwood. Lighting cities, making watches and linoleum, speeding crack trains from New York to Washington. A giant . . . built by an even greater power . . . the power of printing. He who has houses to build and sell; he who has peanuts, tools or a great hydroelectric plant to promote can with confidence turn to the power of printing. Every stick of type and every sheet of paper is power to sell . . . power to do; volts and amperes for industry and commerce. . . . If you have anything to sell, see a progressive printer.
THE YORK COMPOSITION COMPANY
Bierman & Rose Avenues in York, Pennsylvania

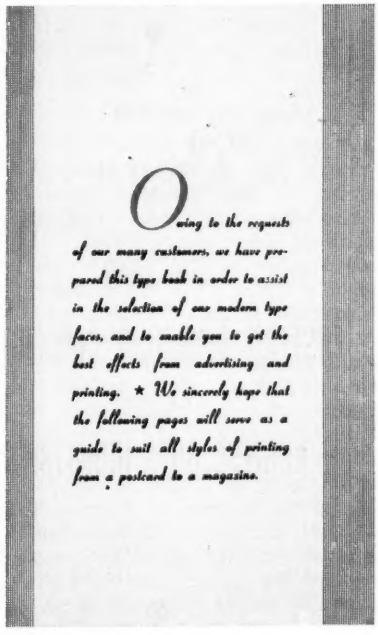
Packed with interest, these five little items are alive with ideas, too. The dynamic blotter across the top was most suitably printed with blue as the second color, gray stock used. Phil Mann's company magazine is not only always of top quality craftsmanship, whatever the style, but invariably reflects a wealth of those almost priceless attributes, ideas. At lower left students of school for mutes at Fulton, Missouri, demonstrate in a simple way how flowers bloom in spring, and right in print shop, too

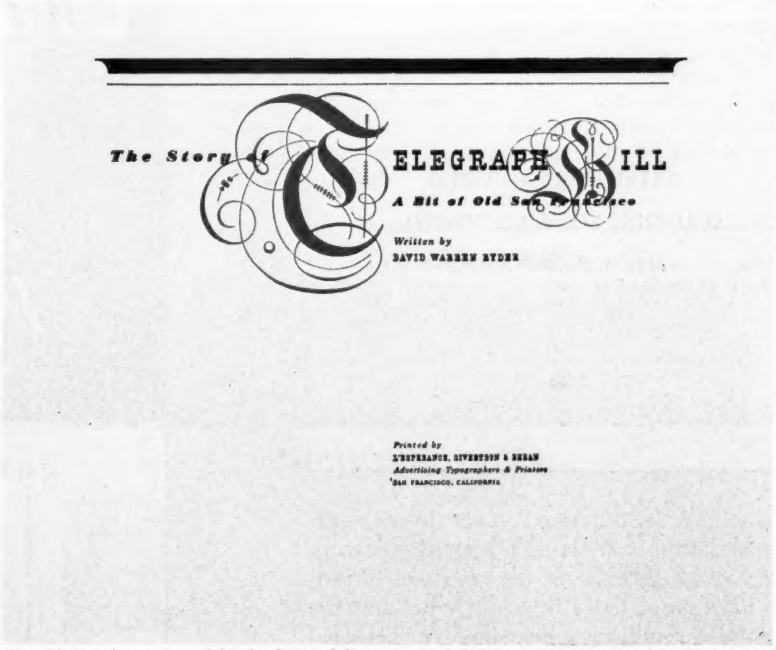
specimen type book is 7 by 9½ inches in size, Wiro binding, the cover being a strong salmon-pink, the inside pages on heavy, high-gloss, white stock. Type faces are shown, one side of sheet only, in a 25-pica column, and down right-hand side of the sheet is a yel'ow band 9½ picas wide, the name of the type face and the sizes in which it is available being printed in black over this yellow band.

VON HOFFMAN PRESS, St. Louis, Missouri—Congratulations on your new combined production manual and type specimen book. It is one of the best, certainly the most he'pful, we have seen in a long time. For the benefit of others who might be planning similar books for the use of their customers, this "Production Manual" is in a loose-leaf binder of heavy boards covered with a red Keratol or similar material. The purpose of the manual, and how it will help in planning printed matter, is described on the opening pages, also how to use the manual. A complete index follows, giving names of the type faces, the pages on which they will be found, also the sizes in which they are available. This index is divided into single line display faces and body type. Then follow one-line specimens, in 24-point, of display faces, with a page showing strip rule and borders. Next, single line display showing point sizes, with miscellaneous characters, brackets, fractions, and so on shown on last page of the section. These pages have been scaled to inches and picas, light green rules showing the number of characters that will go in any given length of line. Body type sizes come next, on each left-hand page being paragraphs set solid, and followed by a paragraph of the italic or bold also solid, while on the facing right-hand page the same specimen is shown one-point leaded and two-point leaded. Then comes a section on display and body combinations to show selections of faces best suited for a particular job. Several of these pages are in two colors, showing effective color usage. The last section gives "Useful Devices and Aids," showing how to scale an illustration, also giving a glossary of printing terms, how to prepare copy, proofreading marks, business forms, paper sizes, money-saving tips, and color in advertising. White and buff tabs enable quick reference to the various sections. Each section opens with helpful hints and suggestions, and in a pocket attached on the inside back cover is a standard printers' ruler, giving inches, 12-point and 6-point on one side and 8- and 10-point on the other side. It's a book that will prove useful to the company's customers through helping them in preparing their printed matter and giving them a far better understanding of the various features entering into the preparation of printing. Certainly it should prove a good will builder, and the company itself will undoubtedly derive considerable benefit through better prepared copy and type specifications.


Rabbits Out of Hats
The only trick we know is to produce printing that invites reading. We admit that it is "quite a trick". It involves no sleight-of-hand. Good printing is the result of careful design to achieve a desired purpose.
We are interested in opportunities to plan and produce good printing.
HERBERT W. SIMPSON INC.
Printing done with skill and imagination
109 Sycamore Street Evansville · 8 · Indiana
Telephone 5-6541



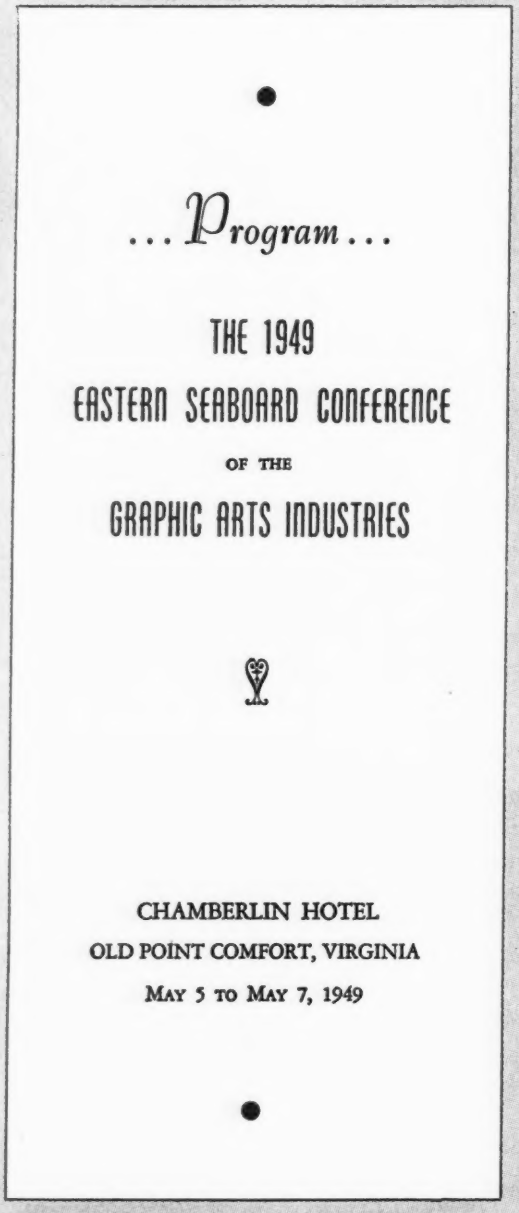

Owing to the requests of our many customers, we have prepared this type book in order to assist in the selection of our modern type faces, and to enable you to get the best effects from advertising and printing. ★ We sincerely hope that the following pages will serve as a guide to suit all styles of printing from a postcard to a magazine.



Top, blotter, in green and black. Center left, cover, and, below, two-page title of booklet, in red and black. Center right, introductory page, in blue and black, by Fitch Printing Company, Toronto

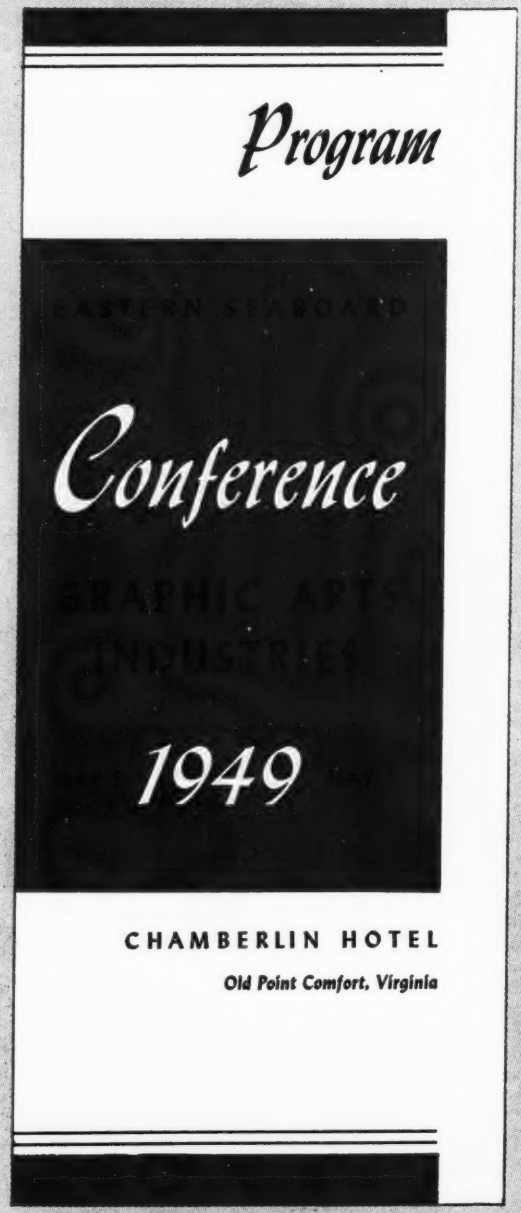
Typographic CLINIC

By Charles J. Felten



Above: Three unrelated types in a static, formal layout that doesn't bespeak the progressiveness prompting the conference. Bullets have more force than the type, and the outmoded center ornament doesn't "belong." Lack of display emphasis is the main fault, principally because too much copy is crowded in the widths of the main lines.

Below: A more forceful and imposing front cover is accomplished by an informally balanced layout which is interpreted in "one series" typography. Lydian Bold and Lydian Cursive, properly emphasized, nicely letterspaced and correctly leaded, combine with a simple reverse plate to create a contemporary pattern which uses color more effectively.



Method of Shoulder Spacing Increases Output of Caster

By HOWARD P. WAMPLER

Engineer of Waverly Press, Baltimore

● ABOUT FOURTEEN months ago, the Waverly Press, Incorporated, pioneered in the introduction of "shoulder spacing" composition in its Monotype caster department. (See the third of a series of articles entitled: *A New System of Hand Composition* by Robert H. Roy, THE INLAND PRINTER, August, 1948.) Shoulder spacing, as its name implies, is a method of casting each justified space in a Monotype line, not as a separate and distinct character, but rather as an integral part—a shoulder—of the first letter of the following word. Since justified word spaces comprise about 16 per cent of the pump strokes on regular composition, the adoption of this unique method will ultimately lead to a large increase in caster room output with no extra production costs on Monotype keyboards or casters.

However, the full value of shoulder spacing could not be realized if the present methods of correcting conventional Monotype composition were adhered to. For, to make additions or changes that require a reduction in the size of the word spaces in a shoulder-spaced line, ordinary correction technique requires the removal of the first letters of words with the shoulders attached, and the replacing of *both* new first letters and thinner spaces. Thus the increased output of the caster would be offset by greater correction costs in the composing room.

Thin Terminals

An "open sesame" for resolving this situation was proposed by Wade H. Patton of the Lanston Monotype Company, and his suggested "thin terminal" method of correction of the shoulder-spaced type has been adopted as standard procedure. Instead of reducing the space in justified lines by changing first letters with shoulders, as mentioned above, Mr. Patton suggested that the last letters of words be replaced by thin terminals, regular characters cast on a type body thinner than normal (See Figure 1.) Experimental comparison of this method for correcting shoulder spacing with the regular method for correcting conventional type showed very little difference in the time required. The merit of the new method was further emphasized when Mr. Patton pointed out that fifteen characters (a, d, e, f, g, h, l, n, o, r, s, t, u, w, y) and three punctuation marks (. , ;) comprise about 98 per cent of the last letters of words in regular type composition.

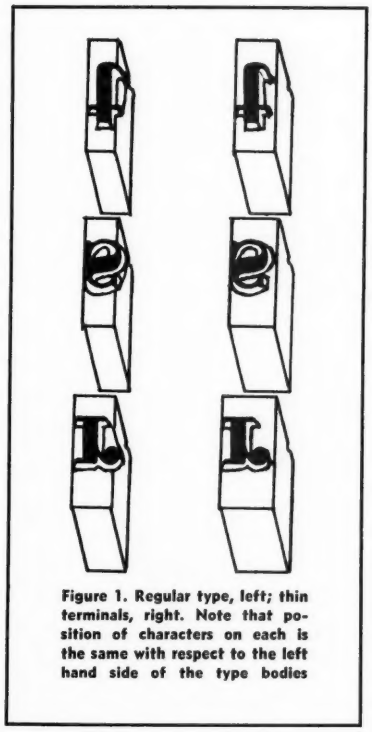


Figure 1. Regular type, left; thin terminals, right. Note that position of characters on each is the same with respect to the left hand side of the type bodies

Tweezers Inadequate

As this new technique was practiced in our composing room, it became apparent that the normal method of using tweezers for correction work was inadequate for shoulder spacing. Compositors were hampered by the lack of the low spaces (see Figure 2) whose presence in regular composition allow for the spanning and subsequent raising of individual words in a line. In order to remove characters from a shoulder-spaced line by using tweezers it is necessary either to spread the line set-wise to permit the points of the tweezers to be inserted between letters or words; or the full line must be raised by use of the tweezers and the left hand, held against the near side of the galley by the left hand, and the characters wanted grabbed point-wise. This latter method, as the explanation shows, is cumbersome and inefficient, while the former greatly increases the possibility of pied type, especially at the end of the line. All of this served to emphasize the importance of minutely examining the existing method and attempting to improve it.

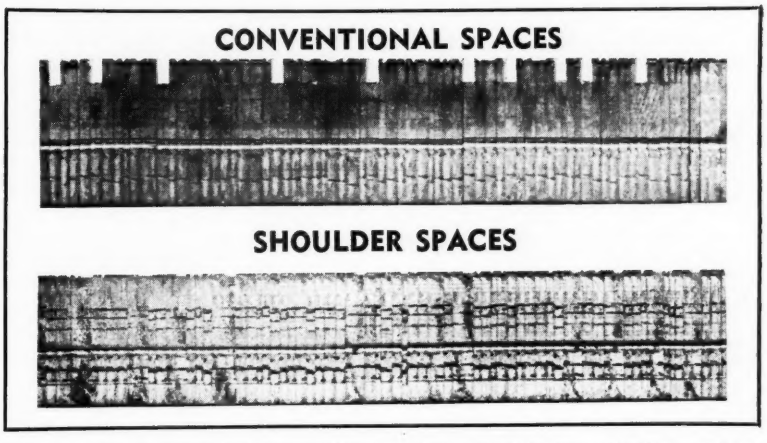


Figure 2. A line of conventionally spaced Monotype (top) and, at bottom, a shoulder-spaced line

Search for a Tool

It seemed clearly indicated that with shoulder spacing, a bodkin would be a much more satisfactory correction tool than would tweezers. Ordinary bodkins purchased from printers' suppliers, however, were ineffective for several reasons. The sharply tapered shaft required much pressure for the puncturing of type characters, and the relatively soft metal of the tool failed to hold a point. Special bodkins made from hardened dental tools had been experimented with in the past, and though they were generally more satisfactory than regular ones, they never became popular. Most compositors preferred tweezers for the correction of conventional type because the maintenance of the finely tapered but brittle point, and its protection from impact with hard surfaces, was troublesome.

These known disadvantages served as guideposts in the search for a suitable tool. In an attempt to overcome the first difficulty, that of maintenance of point, a dental tool known as a "scaler" was tried. Instead of a point, this instrument has a sharp cutting edge at almost a right angle to the shaft itself (see Figure 3). In use, the tool was placed between the top edges of two characters and then pushed part way down into the line. As the scaler was withdrawn, its sharp edge would dig into the soft metal of the nearer type character, raising it above the level of the others, and allowing it to be grasped by the fingers and removed. Experiments with this type of "bodkin" served to illustrate that the principle of withdrawing pieces of type by "hooking" them was sound. However, this was a fairly expensive tool because its characteristics permitted the cutting edge to be sharpened only once or twice, with difficulty, and then it had to be replaced.

Trial of Fish Hook

The description "hooking" pieces of type may have been responsible for the next trial; for the use of an ordinary fish hook, straightened and mounted in a small tool holder, was then tried (see Figure 4). Various compositors were shown the method of inserting the barb of the hook between two letters and withdrawing the nearer one by hooking it in the side. During this initial period of test it was also discovered that the point of the fish hook was also an excellent bodkin. Swedish-made hooks were first tried, but they were so highly tempered that they could not be straightened unless they were first heated. It was then very difficult to get them properly re-tempered. American-made hooks were found to be much more satisfactory. They were hard enough to hold a point and to resist bending when in use, and yet they were not so brittle that they could not be straightened without heating. This combination of fish hook and pin vise gave the advantage of an easily replaceable point and, importantly, the ability to carry it with safety by reversing the hook and locking it inside the pin vise.

Comparison of Tweezers and Hook

In order to roughly compare the efficiency of tweezers against both the barb and the point of the fish hook, a series of short tests were arranged. After a short learning period with the new bodkin, a number of compositors were timed on the process of simply "changing" letters on a shoulder-spaced galley of type. To eliminate the variables involved in the checking of the proof, the interpretation of the correction and its location on the galley itself, no proof was used. The comps were free to select any character (except first characters of words with shoulders), remove it from the line, and replace a new but like character from a type case. Also, to eliminate the bias of getting started, the order in which the tests were made was varied. The results of this simple test on eight compositors are shown in the following table:

Compositor	Tweezers	Fish hook bodkin	
		Barb	Point
	min.	*min.*	*min.*
A	.114	.121	.100
B	.114	.096	.100
C	.186	.156	.133
D	.111	.130	.113
E	.096	.114	.118
F	.098	.085	.079
G	.087	.100	.083
H	.106	.094	.080
Average	.114	.112	.101

Figure 3. Lower part of a conventional dental scaler showing the cutting edge

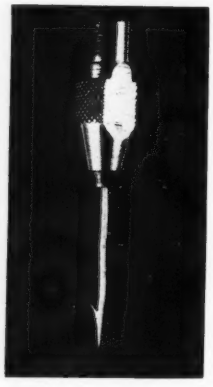


Figure 4. The fish hook mounted in pin vise. Flat place on knurl is used to position the barb correctly without looking at it

Although the results were generally indicative of the relative merits of each tool, the time studies themselves proved to be of much greater value. The close analysis required by the stop-watch studies showed forcefully that *even with like tools,* the actual *method* of changing letters varied greatly with the different compositors. Some comps performed the changes with a certain degree of motion economy by employing both hands in a useful manner. Others performed all the various elements with their right hands and used the left only for holding the place of correction on the galley; but almost every one wasted excessive amounts of time in tapping down the newly inserted character with his index finger.

Program of Analysis

Therefore, in order to properly analyze the situation, the following program was decided upon:

1. Select two or three compositors who would be willing to learn and use a correction method established in co-operation with the engineering department.
2. Take a motion picture film of these comps correcting type by their own method (*before* any training was instituted).
3. Analyze the films by counting the number of frames exposed for each element in the operation.
4. Study and establish a better correction method.
5. Give daily training tests of the new method to the compositors who had been selected for the analysis.

6. Take and analyze another film *after* the training has been satisfactorily completed.

7. Meet with all the comps and present results of the program.

Motion Study

Three compositors in the first group approached agreed to participate in the experiment, and a motion picture film was made of the three changing characters (as described above) in their regular way. Each of these compositors used tweezers as his normal correction tool. From the analysis of this first film it was readily seen that the left hand was idle through much of the correction operation. A material saving of time on correction could be obtained by (1) a better co-ordination of both hands, and (2) the complete elimination of the element "tap down."

Motionwise, a better correction method was originated and presented to the three comps for their opinion. They wholeheartedly accepted both recommended method and new tool, the fish hook bodkin; and they immediately began to practice the proposed technique. After a short period of instruction, daily stop-watch time studies were taken on each compositor making corrections or changes with the point and then with the barb. The daily average time per character, found by dividing the total time of the study by the total number of changes made, for each man was plotted on graph paper. After about twenty daily tests, the points on the graphs began to level off and preparations were made for taking the next film. Unfortunately, at this time circumstances required Compositor C to begin his vacation, so it was agreed, with his approval, to take the second movie on compositors A and B.

Value of New Method

The second film was made and analyzed, producing frame counts for each movement. Compositor B became extremely nervous during his first trial, using the barb. His greatest difficulty lay in the raising or hooking of the character to be changed. During the second trial, however, where he used the point, he had overcome his "buck fever" and his performance was excellent. Comparison of the frame counts of Compositor B before and after training shows a 35.8 per cent saving in correction time with the point, and a 3.5 per cent saving with the barb. The latter, of course, is not indicative because of nervousness. This is proved by comparison of Compositor A's frame counts before and after training.

For Compositor A, the use of the point resulted in a saving of 46.0 per cent over his original method while the barb gave a 40.4 per cent saving. In addition to the material decrease in time required to perform the correction operation, the attempt to co-ordinate the hands better and to eliminate the item "tap down" was achieved. Needless to say, we were more than gratified by these phenomenal gains.

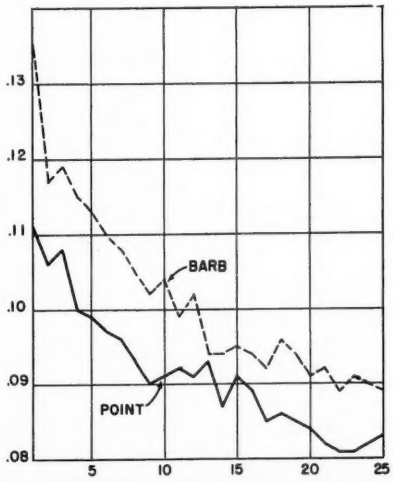


Figure 5. Composite learning curve plotted from daily results of twenty compositors who completed training in the new correction method

The next step on our program, as mentioned above, was the presentation of these data to all of our compositors. Separate meetings were held for the people on all three shifts, and the purpose, procedure, and results were expounded. We hoped, naturally, that others would be as impressed by the results as we were, and that there would be general approbation and keen desire for extension of training in the new method. Unhappily, this was not to be. The general attitude was one of approval, but also of some indifference to its adoption.

Since we all naturally resist any changes in our daily routine, and since this same reaction had been encountered before in our plant, we were not too dismayed. We terminated the meetings with the following agreement: New pin vises, fish hooks, and proper training would be given to those compositors who volunteered for it. In this way, a regular training procedure in the new method would continue only as long as the compositors themselves desired it. Hope was held, of course, that the first volunteers would serve as favorable bellwethers and stimulate other, less impressed, comps.

This is what has happened. To date, training and daily tests have been given to twenty comps, and there are others awaiting their period of instruction. The results so far, as shown by the composite learning curve of the twenty comps in Figure 5, are gratifying. As the graph indicates, there is a slight advantage in favor of the point over the barb, and consequently it is used more in regular work. Nevertheless, there are some situations, such as removing very thin characters or spaces or taking out characters from lines in tightly tied pages, where the barb is indispensable. Since the barb offers no interference when only the point is used, and vice versa, the combination of the two in one makes the fish hook bodkin most efficient.

For years in our composing room, all correction work on conventional spaced type has been performed on incentive, with proved stop-watch time studies as the basis for setting standards on output. Expert compositors generally obtain efficiency of 130 to 135 per cent in output on this work. Recently a series of production studies on the correction of shoulder-spaced type were made on three skilled compositors, each of them using the bodkin and the new techniques. Application of the existing conventional spacing time standards to these studies yielded an overall efficiency of 165 per cent. Initial tests some time ago showed very little difference between the correction of shoulder spacing by thin terminals and conventional type by regular methods. So the new tool and new technique of correction roughly indicates a 30 to 35 per cent saving in correction time, corroborating results on the controlled experiment.

AIGA ELECTS OFFICERS

All officers of the American Institute of Graphic Arts were re-elected at the annual meeting in New York.

They are: President, Donald S. Klopfer (Random House); vice-presidents: Merle Armitage (*Look* magazine), Joseph Blumenthal (Spiral Press), Robert L. Dothard (E. L. Hildreth & Company), Walter Howe (R. R. Donnelley & Sons Company), and Bertram Wolff (H. Wolff Book Manufacturing Company); secretary, Ben Grauer (National Broadcasting Company); treasurer, Ella Oelrich (Oxford University Press).

The Institute also has announced establishment of a new regional chapter in Washington, D. C. Frank H. Mortimer, director of Typography and design of the Government Printing Office, was elected chapter president.

Mottling—Causes and Cures For This Ink Blemish

By EUGENE ST. JOHN

● WHEN a printed film of ink lacks the uniform appearance expected in high grade work, it is said to be mottled. This blemish may show in spots or streaks of varying depth of tone. While mottle appears as one sort of defective inking, it does not follow that it is always caused by the ink. The appearance of the film of ink depends not only on the ink but also on the surface on which it is printed, whether paper or other material; the tools used to apply the ink (the rollers and the other parts of the inking system of the press); the presswork (makeready and pressure used in impressing the film of ink on the sheet); the atmosphere, a variant which affects ink, paper, and rollers so that these materials are not fixed and stable but variants also; and the quantity of ink fed to the form. With so many correlated possible causes, small wonder that mottle is one of the most troublesome problems of the pressman and the inkmaker.

The Low Cost of Ink

A ton of newsprint used by the metropolitan dailies costs approximately $100 and the ink used to print it costs $1.50. While the relative costs of papers and inks used in commercial printing are higher, one is still impressed by the comparatively low cost of ink. The cost of ink on the average job is estimated to be 3 per cent. As the equipment is fixed and the paper determined by the nature of the job, the ink must be suited to the equipment and the paper. It is obvious that the choice of the best ink and not the cheapest should be the rule.

As the first consideration, the ink should be suited to the sheet to be printed, whether paper or other material, and if paper, to the kind of paper. Factors involved in the selection of paper are the nature of the form—type, solid plates, halftones, or a mixture—and the kind of press, its operating speed, and the end use of the piece being printed. If multicolor printing, then the time between printing colors must also be taken into account.

After the kind of ink is determined, it should be selected for a capacity to cover thoroughly in the thinnest possible film, which entails high tinctorial value and adequate grinding and dispersion of pigment in vehicle. This is the most costly part of inkmaking and the reason why a good ink costs a little more. Often better ink overcomes mottle.

With good ink the danger of using too much, one of the most common causes of mottle, is reduced. Too much ink may be used because the makeready is not thorough and complete. In the attempt to make spots weak in pressure print clear and sharp instead of gray or broken, too much ink is carried. Beyond a certain point, this brings on a mottle.

The reason why excess supply of ink causes mottle is that the inking system of the press is delivering more ink to the form rollers than they are able to roll out on the form with sufficient smoothness.

Mottle may be started by using too much ink to match a better ink on a sample which may be superior in coverage. Here the corrective is to use an equally good ink or add a toner to the weaker ink.

You may have noticed ink specimen books in which all pages containing halftones were printed in two impressions, one impression for the halftones and another for the 100 per cent solid plates and type. When confronted with mixed forms, the printer faces less danger of overloading the lights of the halftones by using a good ink.

Factors Producing Mottle

In an ink not suited to the paper, form, and press, the body or consistency of the ink, the grinding, the pigments and vehicles used, and the quantity of ink carried all play a part in producing mottle.

The distribution and the application of ink to the form depend on the rollers and nice setting of these tools. It is obvious that even the best ink cannot function properly unless the rollers are efficient. A change to better rollers — round, resilient, and having ample tack—often stops a mottle. Out-of-roundness, hardness, and lack of tack can cause mottle. On a tough job, it is well to use all the rollers that the press can carry, not only because a full battery helps to restore the ink to its condition when coming off the ink mill but also because the battery helps the ink to cover in the thinnest possible film. Incidentally, ink is saved when rollers are good.

Obviously an out-of-round roller can cause mottle. A hard roller, without tack, cannot spread the ink much better than a wooden paddle on the units of the form, from the halftone dot on up in size. A roller set too low pushes the ink ahead instead of spreading it. Loose set of roller to vibrator also leads to mottling because the last and most important step in the distribution of ink is thereby lost.

Incomplete makeready, aside from entailing the use of too much ink to obtain good coverage, also brings on excess squeeze in spots which causes mottle by squashing the ink.

Mottle Traceable to Paper

Anyone who has printed low grade paper is aware of its lack of uniform surface. All papers except coated lack levelness in surface. Some of the surface is higher than the rest, a sort of hill-and-valley effect. When the web goes through the calenders for all the leveling off possible, the high spots are polished and come out with a sheen while the low spots remain mat or dull. This causes a spotty mottle traceable to paper. Another mottle traced to paper is caused by cloudy formation which may been seen by looking through a sheet held up to sunlight.

Some sheets are more absorbent in some spots than others because of poor mixing in the beater. The coating of some papers may vary in thickness and absorbency. Whatever the cause of mottle from the paper, which may result in glossy and mat spots or dark and light spots, the first corrective generally tried is to increase the penetration of the ink. If this fails, a dull ink is used to give a mat over-all effect to the print, masking the glossy spots. Lack of uniform moisture content throughout the surface of the sheet also can lead to mottle.

Caking and piling of ink unnoticed on the form is another cause of mottle. Poor trapping or taking of one ink on another may cause this flaw. Here as elsewhere a thin film of good ink, particularly in the first-down color, is insurance against trouble. The first color will take the second

color best when set just so it may be handled safely—not bone-dry. Crystallization of the first-down ink causes a mottle in the second ink, sometimes hard to prevent.

White Specks in Print

Small white specks in the print may cause a mottled effect. These white spots may be due to picking, collecting, or insufficient pressure on the lowest spots in the surface of a rough paper. This trouble does not come under the head of mottle.

As a general rule, the papers with harder surfaces are more inclined to show mottle than softer-surfaced sheets, especially when soft inks are used. To prevent this situation, change to a heavier and shorter ink. In an emergency, a little magnesia may be added to the soft ink. However, when using a short ink, caution must be used, because an ink too short for the job may show a dry mottle, when a reducer is indicated.

Differences in Absorbency

A recent example of the difference in absorbency of coated papers: In printing transparent orange over halftone black ink on one coated paper the orange printed with uniform smoothness and a nice gloss. On a cheaper paper and using the same inks, the gloss was almost nil, demonstrating that the absorbency of the paper was too great, and the orange was mottled, which showed that absorbency was not uniform. The orange ink was made to take smoothly by adding a little drier and reducer, but it was dull when dry.

Tints are notably liable to mottle on coated papers. It is better to reduce the original color to a pastel by adding a transparent tint base than to add mixing or opaque whites when printing on coated papers. As a general rule, the transparent inks cause less trouble with mottle on the coated papers than opaque ones. Especially is it better to run a transparent ink over halftone black than to overprint halftone black on an opaque color.

It is even more important in multicolor, process, and tint ink work to use good ink in a thin film than in single-color printing. Unless the first-down color is to be retarded against fast drying for some reason, it should be run without any amendment.

At all times atmospheric changes must be taken into account when looking for the cause. Inks, papers, and rollers work best at a temperature of from 70 to 75 degrees F. and relative humidity around fifty.

Start Safety Program Now—Accidents Can't Wait

By P. R. RUSSELL

● RECENTLY a jury at Memphis, Tennessee, awarded $135,000 damages to one victim of an industrial accident. This was not a printing plant, but it could have been. The judge has recommended a reduction to $100,000, but how many printing firms could stand a loss of that amount without going broke? Workmen's compensation insurance would take care of a part of this but not enough to save the firm.

Employing printers are prone, along with other industries, to overlook careless practices among their workmen until they result in an accident with possible injuries or even loss of life. Somebody gets hurt or gets killed, then everybody gets busy to look for and eliminate hazards that may have existed for years. Where there is a plant safety committee, in the least bit active, there will be reports concerning hazards in the plant. Too frequently these land in the files of management and nothing is done about it until an accident happens.

One Accident Case

This mishap occurred in a large printing plant, because of careless overloading and equally careless handling of a floor truck in delivering stock to the pressroom: Six cases of enamel stock, still in the wood, were being brought down on the aisle to the press on a three-wheel truck. All went well until the truck handlers attempted to turn it about in the aisle. The load, too heavy and too high, toppled over in the aisle, pinning one man against the end of a press and injuring another pressman's leg. The worker pinned against the delivery frame of the press could have been killed instantly. Luck was with him, but the picture of carelessness was there for anybody to see.

Constant vigilance is necessary in handling both flat and roll stock. Remember that a rotary roll weighs about 5,000 pounds, enough weight to do a lot of damage on the loose. This danger is actually increased in a narrow pressroom aisle when a power lift or power driven truck is used. It is almost impossible to avoid bringing stock to presses using both flat and roll stock while presses are in operation and operators are in the aisle space caring for their machines, as frequently happens.

Serious hazards are sometimes created by a machine that needs repairs or replacements of worn parts. Shut the machine down for a week or a month while parts are being ordered and repairs are being made. Don't endanger the lives or risk injuries to the operators. Loss of production by the machine for this period is sure to be less than heavy payments for injuries. Over-age automobiles are dangerous to drive or even ride in on the highways. Using printing and binding machines that are worn out is just as dangerous as driving old cars.

Gasoline and other flammable liquids used for cleaning type forms and rollers in a print shop are a constant menace, especially where the employes handling these liquids are careless. Supervisors should be made responsible for handling gas and other flammables. A flash fire can injure workmen near it and can destroy the entire plant. The rule against smoking in the work room must be enforced with immediate discharge as the penalty.

Need For Non-Smoking Rules

Most common cause of fires in the country is the carelessly thrown match or lighted cigarette. Nearly all printing plants have non-smoking rules, which are seldom enforced as rigidly as they should be. Again, immediate discharge should be the penalty. Progressive plants provide enclosed, fireproof smoke rooms for both men and women as the best answer to this problem.

Plant safety also depends on an eternal search for the careless employe who ignores all safety rules, endangering the lives and limbs of fellow workers as well as his own. In this group is "Mr. Fix-it Himself," who can "fix" his own machine, at the risk of putting it out of adjustment which, in turn, may create a danger for himself and others.

Beware of amateur mechanics and electricians who are altogether too ready and willing to "save the company money." Discharge these fellows or completely curb all their mechanical aspirations.

Watch for the careless machine operator.

Follow the lead of the insurance companies by having complete reports made of every accident that occurs in the plant. How did it happen? Why did it happen? How can a recurrence of it be avoided? A record may reveal a particular spot where accidents are occurring too often. These may point to individual workmen who are guilty of carelessness and to danger-spots that would not be otherwise uncovered.

An active safety committee is a "must" in every plant. The inspections made by insurance men are sometimes too casual and infrequent for safest results. They can find exposed moving parts on machines and require guards on them and can call attention to crowded conditions in the plant, but they actually see little of the procedure in handling raw stock and printed sheets, or the finished work, out of which hazards develop.

A safety committee should consist of workmen selected from different departments, always including one of the maintenance staff who knows how to spot hazards in the wiring of the plant, or in machinery units, which might be overlooked by anyone except a trained mechanic. This committee should meet often, should be composed of persons with "safety-conscious" minds, and they should, of course, be absolutely unfettered by management. Let 'em alone except to see that they do the job to which they have been appointed—and do it thoroughly.

Three, five, or seven people may make up the committee. In larger plants two or more committees, each responsible for certain departments, may be the answer to complete safety. Keep the importance of the committee constantly before the entire plant personnel. Let them know how much their own safety, even their lives, depend on the vigilance of the safety men. That way, fellow employes will help the committee. Constant emphasis of safety slogan has been found effective.

THINK YOU HAVE TROUBLES?

Persian and Pashto are Afghanistan-born Mohammed Khalid Roadhan's native tongues. At Marquette University he now is learning to set type composed of English characters appearing upside down!

Foresight Can Forestall Your 'Invisible Losses'

By A. C. KIECHLIN

• SOFT GOODS are plentiful. The demand for hard goods is dropping. Food prices are coming down. Apparently the buyer's market is here at last. Printers must be alert to the changes this reversal will bring to business so that affairs can be managed to best advantage.

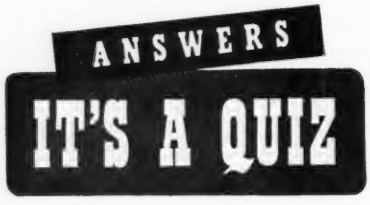
We cannot offer counsel as to desirable procedure in any given case, but certain fundamentals apply to all cases, fundamentals that underlie operations and are seldom apparent to the practical business man who keeps his attention focused on sales promotion, job management, and office routine. We shall concern ourselves with certain phases of operation which, if ignored, may cause what accountants call "invisible losses" when a seller's market switches to a buyer's market.

1. *Working capital:* For some time, money has been comparatively easy to get. As a result, the printer has paid too little attention to his "seed money." From now on, he should watch it carefully. The difference between the current assets and the current liabilities is your working capital. Normally, a satisfactory ratio is two to one, or $2,000 in current assets to every $1,000 in current liabilities. From now on, try to "up" this ratio as much as possible and keep track of it from month to month. In general, working capital can get too high, then it becomes "sleeping capital." It isn't put to work, and so profits are not up to maximum. In the transition from a seller's to a buyer's market, however, this rule may be shelved temporarily. You are better off with as much working capital as you can muster at a time like that because the value of the dollar increases.

"Invisible losses" resulting from scant working capital are loss of discounts from suppliers, inability to make good "buys" that materialize in a buyer's market, interest charged for funds borrowed because your working capital is slim, the tendency to cut prices to get funds. Price wars are inherent in a buyer's market. The printer with insufficient working capital is drawn into them.

2. *Adequate accounting:* Now is the time to appraise your recording methods, overhaul them if necessary or scrap the old system entirely for one that will function efficiently in a buyer's market. With the squeeze on you in a buyer's market, wages still high, prices declining, you need a good set of books to keep you posted on profit. You must analyze operating results monthly to minimize "invisible losses," those hidden tolls that tax profits unbeknown to the printer unless he has a good accounting system and makes a monthly analysis a consistent practice.

Don't forget job costing. The composite net profit on your books won't tell you whether you made money on each job. To get this information, you must cost each job. Job costing will minimize "invisible losses."



Here are the answers to the quiz on page 61. How well did you remember the information which you have read from time to time in previous issues of this magazine or have seen elsewhere?

1. **d,** Montoype keyboard cuts a tape that actuates the machine.
2. **e,** characters are hand-assembled from characters which are printed on acetate.
3. **a,** 114-keyboard assembles "image carriers" called Fotomats.
4. **b,** hand-assembled characters, in Ludlow-style.
5. **c,** Fairchild's Lithotype uses cast Monotype characters on typewriter principle machine.
6. **c,** or Kelly.
7. Albumin and deep-etch.
8. **c,** the mechanical makeready of halftones.
9. **a,** mechanical shading in plates.
10. **b,** page number.
11. **e,** binding side page margin.
12. **d,** Monotype caster part.
13. Fourdinier.
14. Register.
15. **d,** Friburger and **e,** Estienne.

3. *Inventories:* Inventory values are shrinking in many lines. This decrease is an "invisible loss" that can be minimized by buying with greater care, watching turnover, by installing a stock control system on materials and supplies. Loss on inventory is a threat to profits as long as prices decline. Eventually, prices will reach their norm on a lower level and then this hazard will disappear. While the down-trend prevails, the printer should keep a close watch on inventory losses by means of a stock control system, frequent physical inventories, and careful buying procedures.

4. *Accounts receivable:* Discontinue all loose credit-granting practices. Follow up delinquents immediately and get money on the due date. Many printers have been lax since Pearl Harbor. They are carrying too high a volume of accounts receivable in ratio to total sales. In a buyer's market, they will experience "invisible losses" in the form of bad debt write-offs in excess of average, and high collection expense. Put your collection system on the carpet and check its effectiveness.

5. *High costs versus lower prices:* Surveys show that prices have softened more than 10 per cent in many fields, but the same surveys do not show that costs have decreased. It is doubtful that costs will come down for some time after prices begin to slide off. Your overhead expense will remain pretty fixed for some time. Labor will certainly resist cuts. This resistance cannot continue forever if prices drop permanently to lower levels, but it will continue long enough to take a healthy swipe at your bankroll unless you offset the decrease by stepping up volume. The printer must put more steam behind his promotional methods.

It won't take much to eat up your profit if your costs "stay put" and prices drop only moderately. If 5 per cent has been your customary net on sales, a decrease of only a nickel on the sales dollar will wipe out your net unless you cut your costs somehow to account for the difference.

For a number of years, the purchaser has paid the price asked without caviling, and so the average printer has been able to cover his overhead expense and make a profit with comparatively little promotional outlay. In a buyer's market, the responsibility for keeping costs under control will again revert to the seller. The "invisible loss" when prices drop in a buyer's market is the high cost per sales dollar that will not drop automatically with prices. The printer should take drastic action at a time like this, analyzing his business figures regularly, promoting sales vigorously, and watching with an eagle eye for ways to economize.

6. *Weeping Williams:* In our field work, we find that too many printers worry too much about factors external to their business. True, these externals affect their business, but the individual printer can do nothing about the war in China or the socialistic government in England. His best move is to adjust internal operations to external conditions as best he can, whether these externals are domestic or foreign.

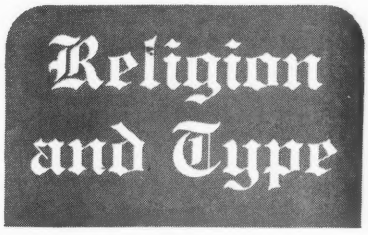
If a buyer's market is here to stay, there is no use complaining about the slim returns on sales. In a buyer's market, it doesn't matter whether a higher price is justified to cover your over-all cost. You've got to bury the crepe and adjust your operations to sell profitably at a lower price level. This can be done by keeping your eyes glued to internal factors and worrying less about external factors which affect your business; by following sound managerial practices and scuttling old routines, particularly the stereotyped procedures that worked well in a seller's market. The chronic worrier experiences an "invisible loss" of energy that should be conserved for constructive sales effort and those other features that make up managerial "know-how."

Prices, considering the over-all economy, are not likely to drop to prewar levels. We believe that business men must get accustomed to a higher-than-prewar price level and higher costs if employment is kept high. Before the war, the country employed about 30,000,000 regularly, today, it is about 60,000,000. Obviously, the more people employed, the more demand for goods; the more money in circulation, the higher the prices, the greater the over-all volume. According to the Federal Reserve Bulletin, currency in circulation is about twice that in 1939. This is another factor that will keep the price level above 1939 unless we tumble into a ditch.

What seems to be happening is that we have exceeded the limit of consumer buying power or inclination to buy as heavily as before. Many lines are now in excess of demand, in which case prices are bound to come down somewhat. There is always a limit. It seems to us that those who have been crying "wolf," contending that inflation would wreck the country because prices were high, are all wrong. There is but one genuine inflation and that is bankruptcy inflation, the Chinese kind, or the inflation that existed in Germany after World War I, when a loaf of bread cost a bushel of marks. This inflation is the result of a total breakdown in productive capacity. With a productive capacity such as ours, genuine inflation, the bankruptcy kind, is impossible.

The price increases experienced since 1939 have been the normal reflection of more people working, give-away programs to other countries, high taxation and wartime pressures. culminating in a distortion of supply and demand. The fact that prices went up under pressures does not indicate bankruptcy inflation any more than the rise of mercury in a thermometer indicates that the world is afire. It was price rationalization, not price inflation.

Under the conditions that have existed for about a decade, prices were bound to rise. There isn't anything abnormal about our "inflation." It shows that our economic system is normal. The swing to a buyer's market is a further indication of normalcy. The printer should stop worrying about it and start planning for profit in the new era. If he promotes sales vigorously, if he uses an adequate accounting system and manages his business efficiently with operating results as a guide, he can make a satisfactory profit in a buyer's market.



The practice of modern printers to reduce everything to points and picas sometimes obscures the interesting significance attached to certain type sizes. Eight point was widely used for breviaries and was known as Brevier. Ten point, used in primers and prayer books, was called Primer. Forty-eight point, used in missals for that part of the service of the Mass, was called Canon.

This terminology is much more colorful, though not so scientific, and is now so much a relic of another day that many very fine printers never heard of Brevier, Primer, or Canon, or some of the other terms.

By DAVID T. ARMSTRONG

PIA Board of Directors Outlines Future Procedure At Midyear Meeting

By RANALD SAVERY

● AT THE fourth midyear meeting of the board of directors of Printing Industry of America, Incorporated, held at Asheville, North Carolina, the chief items of business were reports from the various committee heads on their specific projects, and subsequent approval by the board of a number of suggestions which were advanced by the chairmen of those committees.

In a brief preliminary report, president Carl E. Dunnagan stressed the fact that in his opinion, the purposes of the meeting were to present and discuss problems to be solved, rather than to review accomplishments. "We must," he said, "be persistent in the solving of problems. We can look with pride on what we have done but our real duty is to see what more can be done."

Pays Tribute to Newcomb

Although Mr. Dunnagan pointed out that the development of the PIA was due to efforts of all individual members, he particularly mentioned the effective work done by James Newcomb, saying, "I hope that never a meeting will go by without the mention of Mr. Newcomb."

The first report was that given by Clyde K. Murphy concerning the membership committee. Increase in membership, he stated, during the past six months, had been two firms for a total of 3,545. In describing the policy of membership promotion, he said: "Entirely, our prospect list is directed to prospective members-at-large. There are hundreds of printers in local association areas who are not members of the local association, but we do not promote these, because that is the function of the local association. We have, however, offered our promotion materials to local associations and some of them have utilized these materials."

He concluded: "There is one important step I believe should be taken by the headquarters staff assisted by our officers to the fullest extent possible; that is direct member solicitation in some of the areas where we are not now adequately represented. We expect such solicitations will be undertaken between now and convention time."

Raymond Blattenberger, in his report for the trade relations committee, summed up the chief problem and a course of action for its solution, as follows: "What we are concerned with is a long history of relationship, or perhaps better, lack of relationship, and I think our problems will disappear rather easily if we can establish a technique for discussing them with the supply industries. Therefore, our unsolved problem is that of establishing means whereby there can be a rather continuous mutual exchange of grievances between seller and buyer with the objective of improving the situation of both seller and buyer. To this end I hope to organize a series of conferences with various companies on an entirely informal basis for the purpose of increasing our mutual understanding. From these discussions I hope to present at least a few rather definite programs for action on this important matter."

Reports on Paper Discounts

In reviewing progress of the past six months, Mr. Blattenberger mentioned first the cash discount in paper buying, although regretting in some ways "that the cash discount system has been the starting-off point for the work of your trade relations committee." He remarked, "Inevitably our program in this connection has caused some friction. Not much, I hope, because we have very consciously attempted to avoid the creation of antagonism, and it appears to me there has been no real damage done to basically friendly relationships which exist between the paper industry and ourselves." He then outlined the general situation, section by section, throughout the country, of the progress that has been made in re-instituting the cash discount system.

The paper discount, he continued, had as its basis one factor that might be overlooked by suppliers, and could be applied to other items of purchase. This was, he said, "that the cash discount was an important factor in maintaining the credit position of printers. That is, to the extent that printers operate on a prompt payment basis, the industry will be that much stronger. At a coming meeting of our committee, I intend to recommend consideration of a definite statement of policy to distribute to all suppliers, urging that they hold strictly to credit terms which will not result in their carrying the slow-paying customers. The insistence upon such a policy would certainly help the supplier and also would protect the good-credit printer from competition from the printers who are, in effect, being financed by the supplier."

Scientific Management Needed

He cited the example of the forthcoming publication by the committee of a photoengraving specifications manual, as a possible precedent for "establishing more or less standard statements of policy" in connection with all suppliers "which could be endorsed by our forty-seven local associations and could thereby become more or less standard practice in the industry."

The problem of the committee on business controls, as presented by Arthur A. Wetzel, is primarily "to 'sell' the material which it is able to generate." He amplified his meaning with the statement that the PIA Accounting Manual had as yet been purchased by only some 700 of PIA's 3,600 members.

Printing management, Wetzel declared, cannot operate successfully by the old rules of "common sense or horse sense" only. He described the "common sense" manager as the fellow who says: "I think it would be about right to charge so many bucks per hour," or "We can probably fit this new work into the plant schedule somehow."

He continued: "Gentlemen, this kind of thinking just plain won't do in the times in which we are living. Successful management must become scientific or systematic management. No matter what the size of the company, the principles of scientific management are applicable, and those companies which apply them will inevitably become the surviving companies."

After summarizing the various cost, accounting, and business machine record manuals distributed by

the committee, he urged that each director "take it upon himself to bring about the use of these materials locally. Some associations do this quite well, especially through the medium of class instruction. But much of this instruction is directed at the subordinate level and not at top management itself."

As a constructive step in this direction he suggested use of the simplified cost system manual "as a text for a series of four or more mass meetings of all printers" in a community. Mr. Wetzel felt that "the successful promotion of such a series of lectures would do a great deal toward getting this problem of costs across to printers."

He described the newly developing budgetary control study undertaken by the committee as one that probably "will become a most significant PIA program."

Genuine Collective Bargaining

Building a real atmosphere of genuine collective bargaining was termed by Thomas P. Henry, Jr., as perhaps the most important function which the Union Employers Section of PIA can perform for the printing industry. He described this sort of bargaining as meaning that "the two participants will sit down across the table from each other, view their problems objectively, and resolve any differences for the betterment of all."

He enumerated the various material aids distributed by the Section —the UES scale book, the contract provisions manual, and the adoption of the apprenticeship standards and the international arbitration agreements with the Pressmen's Union. He also described the regional meetings held in 1947 in twelve cities with representatives from ninety-three cities in attendance and the seven meetings in 1948 attended by representatives from forty-nine cities. These meetings "explored the various problems of collective bargaining and attempted to develop a sound philosophy of labor-management relations."

Many associations, he said, provide educational facilities by conducting classes in cost finding, sales training, and related subjects of importance to the industry, and added, "We are preparing the same type of training and are making it available in the subjects relating to industrial relations. This study project will provide for the training of men to serve on scale committees and can be used by employers who do their own bargaining."

Creation of local graphic arts education programs, in which management would participate in a much more influential degree than it does at present, was the problem brought before the board by James J. Rudisill, chairman of the education committee. He was given approval by the board to take what steps he and his committee considered advisable and needful to establish such programs.

Uniformity in Training Courses

Production of the many textbooks under the direction of his committee was described in considerable detail by Mr. Rudisill. "This program," he stated, "is a partially solved problem, and the principal requirement for more expedition is more manpower at headquarters." Successful as the program has been, he continued, "it would not . . . solve fundamentally the graphic arts education problem. . . . If this industry had maintained even a minimum of educational effort during the late twenties, the thirties, and the early forties, the manpower crisis which developed during and after the war generally would have been infinitely less stringent."

The principal deficiency he described as "a lack of participation by management in graphic arts education. There are some 3,000 schools which are giving graphic arts training of one kind or another. In many cases the graphic arts industry in the community concerned is almost entirely without knowledge as to what is being taught, and in some cases, even where it is being taught." He added that "some communities are doing a wonderful job. The program we have in mind would be based substantially on the experience in education gained by these more progressive communities."

He summed up the plans as follows: "The organization of printing company management for co-operation with educational authorities, private or public, in such a way that the local and national industry can make known its desires and thereby help to obtain them."

The major objective of the project, he said, would be "to strive for some uniformity in training courses so that when an individual who has completed a certain course comes to you, you will know fairly definitely what training he has received." One of the first steps to be taken, Mr. Rudisill believes, should be a survey of the manpower needs of the industry, and potential availability. In this connection, he stated, "We have obtained the competent assistance of Professor Hartley Jackson in planning the taking of this survey."

Co-ordination of Research

In his report for the research committee, Frank F. Pfeiffer said: "It is simply amazing how much research is going on in the graphic arts industry, but it is even more amazing how limited is the industry's knowledge of what is being done. Another facet of the problem relates to the matter of what research needs to be done." He recommended that a project be developed to co-ordinate all graphic arts research. The board gave approval for his committee to go ahead with such a plan.

Some work already has been done in this regard. Mr. Pfeiffer reported: "Two committees have been appointed, one to explore the feasibility of establishing an over-all graphic arts technical society, and one to investigate the feasibility of a graphic arts research council with the same coverage. The technical group is now studying to see if other similar societies might wish to cooperate in such an effort."

Another phase of the plan he described as "an organization of sponsors of research, of those who are actually putting money into it. We wanted such a group in order to compile information on research in process, and also for the purpose of stimulating needed research. It has been suggested that PIA's research

One very important contribution to civilization was the invention of a crude kind of paper by the Egyptians. They used the papyrus plant and manufactured paper from it by a long, arduous process.

According to some authorities the bamboo tablets of the Chinese and paper manufactured from silk, wood fibers, and old linen, were in existence in the Orient long before the Egyptians were manufacturing their papyrus.

It has been suggested that the paper first used by the Chinese was a long narrow strip and that they held it in such a way and inscribed their characters upon it after a fashion as to produce the up-and-down writing of lines with which we are now so familiar, if we have had even a little experience with a laundry ticket.—DAVID T. ARMSTRONG

committee be enlarged to encompass all active graphic arts research sponsors, regardless of their membership relationship to PIA. As a first step, the committee urged that the PIA committee immediately send out a form to all known sponsors of research asking them to catalog the research they are doing."

In reviewing work completed, Mr. Pfeiffer reported, "Eighty-eight individuals are working with us in fifteen committees, covering, we believe, every major division of the research problem. This number is an understatement because many of our members work on more than one committee." He described reports issued in connection with the research manual, which included manuscripts on book-binding leather, bronze, stamping leaf, pyroxylin-treated book cloths, ruling inks and dyes, control in warp in book covers, and magnesium plates. Others to be published include a graphic arts dictionary, undertaken in collaboration with Colton Press, New York.

The function of public relations was outlined by James R. Brackett. Public relations, he said, could include the following objectives set down in the By-Laws of PIA: "To develop recognition of the printing industry as one of the foremost American industries; to increase the influence and prestige of the printing industry in the general councils of business; to increase the respect in which the industry is regarded by public officials and leaders in industry and labor; to educate the general public and business as to the value of printing."

He cited one example of the attainment of these objectives as being in the field of government relations, as follows: "It would have been possible for us merely to have presented a mimeographed brief to the appropriate committee of Congress, without personal appearance in connection with our interest in taxes, the Taft-Hartley law and the postal rates situation, for instance. Instead, we printed our statements in an attractive form and distributed them to all members of Congress as a matter of information, and to the extent possible our representatives made personal appearances before the committees."

In another field of public relations he mentioned the article in the Harvard *Business Review* by I. D. Robbins, entitled, "Management Services for Small Business through Trade Associations." Of this article, Mr. Brackett said: "Our work in the management field was judged to be of sufficient value as to be worthy of an article in an authoritative journal. That article was read not only by a high class of circulation, but reprints of it were circulated to all the members of American Trade Association Executives throughout the United States."

Life in the pressroom

By Joseph Kovec

This all came about after they put on some new gears, new roll on the main bed drive, and ruined the register rack. Then your writer was called up for information. So I came in to look and listen to the press in motion. It was not pounding at that time because the new register rack was not on. They said it was too big and high. This did not prove to be the problem. I demonstrated that by putting the rack on and letting it run in. The main trouble was down underneath the bed. After checking on the different speeds of the press we got a knock when we ran it on high speed. So we set the register rack back a little bit and started it up once more for observation. This proved to be okay, but that was not the real trouble.

I got down on my knees to see what was underneath, and I found there was plenty of room for improvement down there. The space between the roll and shoe was sufficient—about 12/1000 of an inch—so they bought some new plates for the press. Now they have their fingers crossed and hope that nothing else develops. This happens when you buy unreliable old used presses. They may need a lot of new parts.

Ink up that form with plenty of ink, then plane the form down. The ink makes a good cushion and helps fill up small type and also helps that planer to grow and put those whiskers on the type and improves on the halftones. You will pardon me for this one. Yet it does happen here at this age. Youngsters are coming into the printing

trades and sometimes you have to go over the fundamentals of this printing business. Oh, yes, I learned from those who came before me, so I should brag! Experience is the best teacher, but book "larnin" helps.

I can come to my place of employment each morning and find the planer with enough ink on it to run several impressions with what is left on it from the night before. Nobody seems to give a gosh-darn. This happens due to all the changes of some of the work. We get a run of several thousand tickets (25-50-75 etc., on some of the tickets). We could use a little elbow exercise with a type wash on that brush and rag, but don't dare touch it—you might waste a lot of time. We all makes mistakes at times, but to continue with this kind of nuisance gets your blood pressure up. You just got to do something about it. Let's try to improve on our work instead of getting into a rut and making uncalled-for loss of time.

How about keeping that waste paper off the floor? There should be a receptacle at each press. It makes you feel like you are working in a place where they have no thought for cleanliness. You know, I just love to work where dirty rags and ink cans are piled up in a corner, and where the towels are dirty. The windows? Well, you could see the light from the outdoors if you scraped a hole off a spot there. Cobwebs hanging on the walls. Floors that never saw a mop or scrub brush since they moved into the place. Maybe you think I am exaggerating. I have been around some and I have seen and been employed in just such places in my time. Pardon me if the shoe fits!

The MONTH'S NEWS

Devoted to timely items concerning men and events associated with printing. Copy must reach editor by 20th of month preceding issue date

LABOR SHORTAGE IN BRITAIN

British printers are still facing the tremendous problem of the scarcity of skilled labor. The machinery is available to handle a vastly bigger volume of work than is being put out at present, and most plants have sections which are currently unused because of the lack of trained men.

While employers have been pressing for some alteration of the ratio of apprentices to craftsmen, the unions have rigidly opposed such a step, which appears essential if printers are to overtake the volume of work. Perhaps the best picture of this situation can be had from the labor problems of the trade typesetting firms.

These firms handle an immense amount of work, farmed out by individual printers whose own shops are too busy to tackle it, or work which they aren't able to handle economically. Managements in the typesetting firms report a tremendous flow of work from master printers throughout the country with no apparent prospect that the deliveries can be speeded up and achieved on time.

Although there is still a shortage of paper this is not an essential feature of the situation since the supply has improved to the point where all the work can be handled in the terms of the paper required.

One of the big headaches is the intervention of periodic booms of essential work such as voters rolls, election material, and similar printing. Flooding into printing houses throughout the country at the same time, this work imposes a tremendous strain on the trade and inevitably means that most of the normal work must be delayed while this special printing is pushed through in a hurry.

WILLARD NAMED ATF DIRECTOR

Board of directors of ATF, Incorporated, has added Leigh Willard to its roster of members, it has been announced by Thomas Roy Jones, the president of the corporation, which is the parent company of American Type Founders.

Mr. Willard is board chairman of Interlake Iron Corporation, Cleveland, and an officer or director of several coal companies, the American Iron and Steel Institute, and the Union Bank of Commerce, Cleveland.

WILLIAM T. HARRISON, SR.

William T. Harrison, Sr., 65, secretary-treasurer of William J. Keller, Incorporated, the Buffalo (New York) printer and lithographer, died June 19. He joined the sales force of the firm in 1916 and in 1936 was made secretary-treasurer. He previously had been associated with the old Pierce-Arrow Company.

MIDDLETON HONORED

An honorary degree of Doctor of Fine Arts from Transylvania University at Lexington, Kentucky, was conferred on R. Hunter Middleton, director of the department of type face design at Ludlow Typograph Company, during commencement exercises at the school on June 6.

Victor Hammer, artist-in-residence at the historic school which dates back to 1780, designed and executed Middleton's diploma, with calligraphy in the Uncial hand, the model for Hammer's American Uncial type face.

R. HUNTER MIDDLETON

The Society of Typographic Arts in Chicago also honored Mr. Middleton, with a testimonial dinner held June 9. The Society's president, Walter Howe, presented him with a certificate of honorary membership. Mr. Middleton has served the Society since its founding in 1927, having been its first secretary (for fifteen years), then president, now director.

DMAA ANNOUNCES 1949 CONTEST

Official announcement of the 1949 Best of Industry Contest, sponsored by the Direct Mail Advertising Association, has been made by Dale Y. Ecton, president of that organization. The contest, twenty-first in the series, is open to all users or producers of direct mail campaigns, regardless of membership in DMAA, without restriction to size, type, purpose, or classification.

Direct mail campaigns eligible for the competition are those produced between September 1, 1948, and August 31, 1949, in the United States or Canada. They will be rated by the jury on the basis of four factors: effectiveness, or results obtained; plan and continuity; copy and design, layout and appearance. Campaigns in each class of business will be chosen for "Best of Industry" awards. In addition, there will be numerous merit awards for compaigns judged to be deserving of honorable mention. Last year, seventy-eight Best of Industry awards and forty-four merit awards were made by the judges of the contest.

Announcement of the winners and a display of their campaigns will be a feature of the DMAA annual convention in Chicago, September 21 to 23. Following the convention, the displays will be booked for showing and discussions before advertising clubs and business organizations in dozens of cities throughout the United States and Canada.

Printers are invited to enter campaigns they have produced to promote their own plants and services. Direct mail done for customers should be entered under the auspices of the sponsoring company. Entry blanks, with detailed information and instructions, are available from Frank Frazier, executive director, Direct Mail Advertising Association, 17 East 42nd Street, New York 17.

NAMED ASSOCIATE PROFESSOR

Homer E. Sterling has been advanced to the position of associate professor in the department of printing administration at Carnegie Institute of Technology, it has been announced. The appointment is to take effect September 1. Mr. Sterling also has been named associate professor of graphic arts design. A graduate of Carnegie, Mr. Sterling joined the faculty in 1926.

COLOR GUIDE FOR NEWS INKS

A color guide for news inks showing thirty colors has been prepared by International Printing Ink, Division of Interchemical Corporation. Standard and alternate process and comic inks are included, also eight halftone web colors and sixteen run-of-paper colors. The guide is offered without charge to those needing this aid.

MAIL FORWARDING RULES CHANGED

Publishers are requested to learn the new procedure in handling forwarded or returned undeliverable second-class mail. A new form, 22-S, is for local

change of address. Form 3579 notifies publisher of new address, or gives reasons for nondelivery of second-class mail. Detailed information is available at any post office.

H-S NEW EASTERN QUARTERS

Harris-Seybold Company is installed in its new eastern district headquarters at 380 Second Avenue, New York City. The move provides an entire corner ground floor and basement, consisting of 20,000 square feet of space. The parts department is downstairs. On the ground floor are the offices, display rooms, a newly installed repair and rebuilding department for presses and cutters, and a showroom for motion picture projection and for exhibits of work done by offset.

The company held a three-day housewarming June 1 to 3, entertaining visitors from various branches of the graphic arts. J. C. Dabney, eastern district manager, was chief host, assisted by members of the staff from New York, Boston, and Philadelphia. Also on hand for the christening ceremonies were Harry A. Porter, Jess Swaney, R. J. Niederhauser, R. P. Tyler from Cleveland, and Ren R. Perry, who is from Chicago.

On display, in addition to current presses and cutters, was the first Harris press manufactured, the S4L. Also exhibited was the new Sussin camera, which is being distributed exclusively by Harris-Seybold.

REVIVE TYPE FACE BOARD

The National Board on Printing Type Faces, inactive since 1935, is planning to hold a meeting in New York in September, with the aim, according to the announcement, of starting "a re-organization of the membership," and of evaluating "the trend in type faces and typography which has taken a tremendous change since 1935." Plan is to "set up a new list of approved types for the advertising industry," on the basis of "best design, beauty, legibility, and extensive use."

Invitations to attend the meeting have been extended to representatives of the Art Directors Club, Society of Typographic Arts, the American Institute of Graphic Arts, the American Association of Advertising Agencies, the Type Directors Club of New York, Type Directors Club of Chicago, and the Advertising Typographers Association of America.

Type manufacturers have been invited to submit recent type faces for evaluation by the National Board on Printing Type Faces for possible approval and recommendation to those who produce advertisements.

ISSUES NEW SELLING HELPS

"Mountie" red is featured on the covers of three new sample books issued to distributors of the Northwest Paper Company of Cloquet, Minnesota. The books contain swatches of colors and finishes in each grade of paper, and figures on weights and sizes.

SURPRISE PARTY FOR SOL BERG

In recognition of his twenty-fifth anniversary with J. H. & G. B. Siebold, Incorporated, New York, a surprise party was given for Sol Berg by the company and his fellow workers on May 25. Starting in the office, where light refreshments were served, the party went out for dinner, where the party festivities continued. Honoring his long service, a diamond-set wrist watch was presented to Mr. Berg by the company, and a diamond-set tie clasp by his fellow workers.

Present at the party were George B. Siebold, Jr., president and treasurer, Edward Frieberg, the sales manager; Michael Rosalia, the manager of the roller department; Louis Hau, the superintendent of the ink department; George W. McGee, James J. McGee, Barney Brandon, Frank Bruno, William Van Aalst, and Murray Lopez.

WINS CARNEGIE SCHOLARSHIP

Samuel Steinberg has been awarded this year's four-year scholarship to Carnegie Institute of Technology department of printing granted annually to an outstanding printing student at the Murrell Dobbins Vocational-Technical School by Printing Industries of Philadelphia, Incorporated. John S. Williams, president of the association, made the presentation during commencement exercises at the school.

ELECTROTYPERS AND STEREOTYPERS CONFER ON ASSOCIATION PROBLEMS AND PLANS FOR FUTURE

● BUSINESS problems affecting their special branch of the graphic arts industries were the subjects of talks and open discussions by members of the International Association of Electrotypers and Stereotypers meeting at Atlantic City for their first spring conference for nearly ten years.

H. W. Haydock, of the Royal Electrotype Company, Philadelphia, and president of the association, in his opening address sounded the keynote of the sessions. Reviewing the activities of the association and the work of the committees, Mr. Haydock briefly discussed labor relations in the industry, and also placed emphasis on the importance of electrotyping and on the important part electrotypes have in effecting savings in the production of printed matter.

Executive secretary of IAES, A. P. Schloegel, after reviewing the various activities in his report, called attention to the increase of the industry as shown by the 1947 census. Receipts of $59,000,000 were reported for 1947, comparing with $29,000,000 reported for 1939, an increase of 103 per cent. Value added by manufacture in the industry during 1947 amounted to $47,900,000, an increase of 117 per cent over the $22,100,000 value added as reported for 1939. Average employment in the industry was 7,173 in 1947, 6,333 in 1939. Salaries and wages paid to all employes increased 118 per cent over the period, from $14,400,000 in 1939 to $31,400,000 in 1947. Expenditures for new plant and equipment during 1947 totaled $2,400,000.

The association's treasury is in a healthy condition, the advertising in the monthly *Bulletin* has held up well, and five special bulletins have been issued to the membership, the secretary stated in closing his report.

The report of the committee on cost accounting brought out considerable discussion, with the result that an advance appropriation was approved for a preliminary study of developing a better, more accurate, yet simplified method of determing costs, one that will improve and modernize the system which was adopted some years ago.

A detailed review of some of the accomplishments achieved through the research and experimentation under direction of the association in years past was given by Dr. H. S. Lukens, Dean of Chemistry at the University of Pennsylvania, who has worked closely with the electrotype industry in solving many of the problems connected with making electrotypes. Difficulties with the deposition of copper on wax molds, also with the deposition of nickel, the separation of lead molds from the shells without sticking—these and many other similar problems that have been overcome were reviewed by Dr. Lukens.

The report of the technical advisory committee was presented by C. A. Mawicke, of the Pontiac Engraving and Electrotype Company, Chicago. He summed up work already done by the committee, and discussed the various phases that would benefit the electrotypers individually and the industry as a whole. Open discussion followed the report, during which matters pertaining to electroplating were brought out; also the problem of acid waste disposal, which presents a serious situation in some sections of the country and is cropping out in other parts; the need of more technically trained men in the plants; experiments on cobalt nickel plating; plastic mounting of electrotypes; the high-speed copper plating; voltage controls, and many other problems that enter into electrotyping.

The compilation of a bibliography that would provide electrotypers with lists of all the material already published on materials and processes; anode standardization; iron plating of electrotypes; plastic plates, all came in for their full share of time during the course of the discussion, as did personnel relations, public relations, and similar topics.

The fifty-second annual convention of the association will be held in Montreal, Canada, starting on September 18, and running through September 21.

NEW PLATE DEVELOPED

A new printing plate developed by Time Incorporated promises faster offset printing and higher quality production. Time plans to use the new plate in exploring the possibilities of printing its magazine by offset rather than letterpress.

"We are hopeful," states Charles L. Stillman, executive vice-president of the corporation, "that the availability of this plate will step up the development of high-speed offset presses."

The new Time plate has held up for as many as 1,500,000 impressions without appreciable wear, it is claimed. With its intaglio copper image surfaced with chrome, the plate produces higher quality printing, greater ink coverage, and uniform printing results throughout long press runs, according to Time officials.

Commercial tests of the plate were made by California's Pacific Press, Incorporated, and Livermore and Knight, Providence, Rhode Island.

The unusually fine screen used in making the plate largely explains its superior printing quality. A 300-line screen can be used with the new offset plate.

SAFETY MANUAL FOR PRINTERS

The executive committee of the printing and publishing section of the National Safety Council has approved plans for a manual of safety instructions for the printing industry. Industrial data sheets will be prepared concerning pertinent safety information on handling of roll stock, skids and platforms, housekeeping for safety in the pressroom, and static electricity.

At a recent meeting of the committee, the need was stressed for co-ordination between the printing industry and equipment manufacturers concerning installation of safety devices at the time of manufacture. Co-operation was also recommended between printing trade associations and small companies unable to employ safety men in their plants.

The committee's annual meeting will be held October 27 in Chicago in conjunction with the convention of the National Safety Council.

SCHNEIDEREITH BROCHURE

Schneidereith and Sons, Baltimore printer celebrating its hundredth anniversary this year, has issued a brochure titled "Performance is better than Promise," reproducing in full color outstanding booklets and catalogs recently done for clients. The only reference to their anniversary is a modest mention in one final paragraph.

MAHER OPENS LABEL DIVISION

The new Kittredge Label Division of the John Maher Printing Company, of Chicago, Illinois, operates as a separate entity in which B. E. Kittredge is associated with John J. Maher. The new division is equipped with precision cutters and other finishing units for the printed label field.

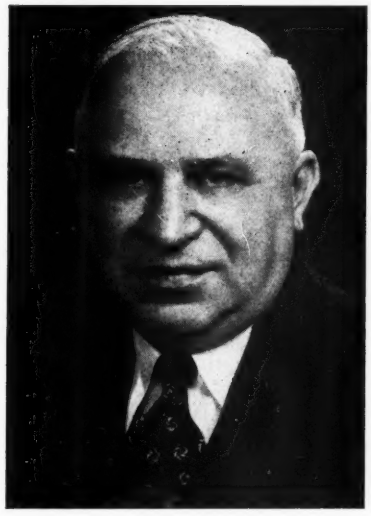
Printing Education Conference Achieves Far Greater Heights of Interest and Practical Value

By C. HAROLD LAUCK

● THE TWENTY-FOURTH annual conference on printing education, under the sponsorship of the National Graphic Arts Education Association, was held at Pressmen's Home, Tennessee, from June 19 to June 23. According to members in attendance the conference was the most successful one to be held in recent years. There were approximately 150 registrants representing all sections of this country and Canada.

The unusual setting of the conference in the Great Smokies of Tennessee was ideal and the vacation aspects of the conference were enjoyed by the whole group. (This is the first time the conference has been held away from a metropolitan area.) The hospitality of Thomas E. Dunwody, director of the Technical Trade School at Pressmen's Home, and his staff was notable. Sessions were held in the auditorium of the new Technical Trade School.

A special feature of the conference was the Hour of Worship and Memorial Service on Sunday evening preceding the regular sessions. It was held in the Memorial Chapel and all participants were officers of the National Graphic Arts Education Association: Fred J. Hartman, John Henderson, Charles Kennedy, Harold Lauck, John Backus, Chester Lyle, Milford Hamlin, Edward Estabrooke, and Allan Robinson. The service was prepared by J. Henry Holloway, honorary president of the association, and formerly principal of the New York School of Printing.



Fred J. Hartman, educational director National Graphic Arts Education Association, has for years advocated higher standards of printing education. His efforts have created a far greater appreciation of importance of systematic training, as demonstrated at the conference last month

The general theme of the conference was: "Meeting the Needs of Graphic Arts Education Today and Tomorrow," with forums on presswork, composing room, and offset lithography.

Opening Session

The opening session was presided over by President John G. Henderson, head of printing department, Washburne Trade School, Chicago. Following greetings by Thomas E. Dunwody, addresses were heard by Edward C. Estabrooke, director of education at the American School and American Technical Society, Chicago, on "How to Make and Use Performance Tests"; and John A. Backus, Manager of the department of education at American Type Founders, Incorporated, on "The Need for Vocational Guidance Literature." Then followed a demonstration of silk screen printing by Vincent C. Coyne of Middlesex County Vocational School, New Brunswick, New Jersey, treasurer of the association.

The afternoon session of the first day was devoted to a forum on presswork presided over by Allan Robinson, principal of Mergenthaler Vocational High School, Baltimore, and past president of the association. Speakers included Mr. Robinson on "Basic Presswork Principles"; Thomas E. Dunwody on "Pressroom Problems and Difficulties"; and Russell Hogan, of Blanchard Press, New York, on "Modern Production Techniques." George Welp, of the International Printing Ink Division of Interchemical Corporation, presented a demonstration of color matching.

The evening was taken up with the showing of a series of four movies.

The Tuesday morning session was presided over by Patrick F. Boughal, of the New York School of Printing, and consisted of a forum on the composing room. R. Hunter Middleton, director of type face design, Ludlow Typograph Company, Chicago, gave an illustrated lecture on "American Typography on the March." Edward Parker, director of the graphic arts at Ryerson Institute of Technology, To-

ronto, Canada, spoke on "Typography of School Publications." A demonstration of Xerography and Xeroprinting was presented by Charles O. Oughton, assistant supervisor of the graphic arts research division at Battelle Memorial Institute, Columbus, Ohio.

Wednesday was plant visitation day, with conducted tours of the Kingsport Press, Mead Pulp and Paper Corporation, Holliston Mills, all in Kingsport.

At the business session all officers were re-elected for a term of one year. Resolutions passed by the group included one setting the dates of next year's conference in Chicago in September to coincide with the Graphic Arts Exhibition. Another resolution expressed thanks to the general committee on arrangements for the conference, including Thomas E. Dunwody; C. Harold Lauck, Journalism Laboratory Press, Washington and Lee University, Lexington, Virginia; and Fred J. Hartman, executive director of the National Graphic Arts Education Association.

Some of the delegates, with guests and visitors, at twenty-fourth annual conference on printing education at Pressmen's Home, Tennessee, June 19 to 23

The following session was devoted to a forum on offset lithography, the presiding officer being Fred J. Landon, head of the printing department, William Hood Dunwoody Industrial Institute, Minneapolis. Addresses were by Charles Shapiro, of the Lithographic Technical Foundation, on "Your Responsibility in Vocational Guidance for the Graphic Arts"; and Dr. Silas M. Thornson, instructor in the department of publishing and printing at Rochester (New York) Institute of Technology, on "Approach to Lithography through Photography." Then followed an audio-visual on "Making an Offset Plate" by Charles Shapiro, and Harris-Seybold's movie entitled "Printing Profits."

The Annual Banquet

The annual banquet on Tuesday evening, presided over by John Henderson, and with Harry L. Gage as toastmaster, was the highlight of the conference. With "The Graphic Arts—Past, Present, Future" as a theme, addresses were made by Carl E. Dunnagan, president of Printing Industry of America, on "Printing in America—Yesterday and Today"; Col. E. W. Palmer, president of Kingsport Press, Kingsport, Tennessee, on "The Story of the Making of Books in America"; Wade E. Griswold, executive director of the Lithographic Technical Foundation, on "The Story of Lithography"; and Thomas E. Dunwody on "A Dream Come True." George Welp presented the association with the silver cup for the 1949 IPI Essay Contest.

$1,250,000 EXPANSION PROGRAM

On the day of its centennial, Rolph-Clark-Stone, Limited, Toronto printer, started a $1,250,000 expansion program when Frank W. Stone, president turned the sod on June 10, for a four-story addition to the company's plant.

A chromium chest containing current newspapers, a history of the company, and other documents will be embedded in the walls of the entrance, to be opened on June 10, 2049.

At a centennial banquet for 700 employes and their families, Mr. Stone paid tribute to those who had made the firm's growth possible. In his address, he remarked that although trade outside Canada had been at a standstill, "we have not given up hope of renewing it in the future."

CLAIM POSTAL INCREASES ARE INADVISABLE

• HEARINGS on the bill to increase postal rates by $250,000,000 yearly, requested by Postmaster General Jesse M. Donaldson, are expected to be concluded soon. Senator Matthew Neely (West Virginia) has renewed his suggestion that the Senate subcommittee (of the Post Office and Civil Service Committee), users of mail, and the Post Office department work together on a compromise rate schedule, but his proposal has not been accepted. The National Council on Business Mail, Incorporated, and other interested organizations stress their view that *any* rate increases are inadvisable now, in view of the present state of business.

Final testimony of the hearings will be a rebuttal by Mr. Donaldson in support of increased rates on post and postal cards, third and fourth class mail, and special services. His request for substantial increases on second class mail was repeated before the House committee last month. At that time, Mr. Donaldson said:

"It has been suggested that I sit down with the publishers and reach a compromise on second class rates . . . I note that some publishers state they cannot stand any increases, others state that they could agree to a 5 per cent increase, and still others have suggested a 10 per cent increase in the rates. A 10 per cent increase would increase the revenue by only about $4,000,000 involving a $200,000,000 subsidy, and I could not conscientiously agree to any such compromise . . ."

Delays in winding up the hearings on proposed increases, due to heavy legislative schedules in Congress, have caused some belief that postal rate legislation might not be concluded before Congress adjourns, although a bill was pushed through the last regular session in 1948, increasing rates of most all mail except second class.

IPI TRI-METAL PLATE

The International Printing Ink Company has recently issued a statement on its patent position regarding the Tri-Metal plate manufactured by the company. The Tri-Metal plate is an exclusive, patented development of the company's ten year research program on the offset lithographic process. The patent covers processing and use. A low-cost licensing policy makes it available to all.

The company reports that others are now apparently offering what is said to be the same plate under other trade names. It is pointed out that offset lithographers who buy such plates are no doubt unaware that they require a license to process and use the type covered by the International Printing Ink Company's patent. In letters to trade associations, the company explains that its position actually protects the offset field from possible exploitation.

DIVELY NAMED DIRECTOR

George S. Dively, president and general manager of Harris-Seybold Company, Cleveland, has been elected a director of the American Management Association for a term of three years.

For the past two years, Mr. Dively has served as vice-president in charge of production for the association.

HONOR VETERAN EMPLOYES

Fifty-seven employes of the Niagara Lithograph Company of Buffalo, New York, who have completed twenty-five years or more of service were honored at a company banquet June 21. Three of them who have been with the firm fifty years or more were singled out for special honors.

They are: Horace Reed, president and one of the founders of the fifty-three-year-old company; August Fey, artist in the reproduction department, who will complete fifty-three years of service in September, and Fred Schutz, production manager whose service record hit the half-century mark June 19.

MILO ZIMMERMAN RESIGNS

Milo Zimmerman, secretary, sales manager, and a director of Kable Brothers Company, Mount Morris, Illinois, resigned on June 1, having been with the firm for over thirty-six years. He had until recently been active in other graphic arts activities as president of the Rock River Club of Printing House Craftsmen. In World War I he was an artillery instructor, and in World War II served as field director in the American Red Cross. His plans for the future have not been announced.

CELEBRATES 40TH ANNIVERSARY

Melville C. Cole, president and general manager of Southworth Machine Company, Portland, Maine, was guest of honor at a recent surprise party given him by his employes to mark his fortieth anniversary with the company. Personnel of the plant presented him with a power lawnmower.

Mr. Cole was hired by Southworth in 1909 to do odd jobs in the machine shop, which manufactures graphic arts machinery. Successively promoted from one job to another, in 1939 he became persident of the company.

SNELL NAMED SERVICE HEAD

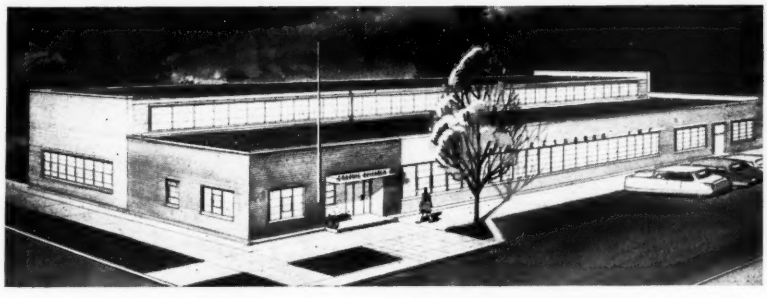
Ted C. Snell has been appointed supervisor of service in the Midwest area for the Printing Machinery Division of the Electric Boat Company.

For the past two years Mr. Snell has been traveling in the Midwest area as an erector and service representative for the company. Prior to this time, he served as chief test inspector at the company's Groton plant. His headquarters will be in Chicago.

MERGENTHALER APPOINTMENTS

Fred B. Asdel, Jr., has been named manager of the Mergenthaler Linotype Company's Pacific Coast agency at San Francisco, to succeed Harry W. Porte who has recently become director of sales. Edward D. Betts succeeds Mr. Asdel as manager New York agency.

New Plant Now Being Constructed for Graphic Research



A model printing plant is under construction for Graphic Research, Incorporated, an affiliate of Vandercook & Sons, Incorporated, Chicago. There will be a complete Pre-Press Department at the new plant, to specialize in accurate evaluation of the new methods and equipment under test. Rigidly controlled atmospheric conditions will be provided to maintain year-round even temperature and humidity. The new building, which will be 16,000 square feet in size, is expected to be ready for occupancy in November.

FRANK J. SMITH

Frank J. Smith, president of John P. Smith Company Incorporated, of Rochester, New York, died at his home, June 12.

Mr. Smith was born in Rochester in 1886, and early displayed great interest in printing reproduction mechanics and methods.

FRANK J. SMITH

For ten years he headed the Rochester Typothetae and for five years was president of the United Typothetate of America. He was chairman of the National Graphic Arts Code Committee under the National Recovery Administration.

During the second World War he was a member of the Commercial Printing and Lithographing Industry Advisory Committee of the War Production Board and also accepted an appointment as administrative officer of the Rochester Ordnance District in 1942.

Though never an office-seeker, Mr. Smith was active in local, state and national politics. He was a trustee of the Rochester Institute of Technology, a director of the Rochester Civic Music Association and served as chairman of numerous community activities.

SUGGESTIONS FOR LETTERHEADS

A monthly mailing of a series of letterhead portfolios is being made by Rising Paper Company, Housatonic, Massachusetts, these portfolios containing actual printed specimens of letterheads on Rising papers. Suggestions for typographic arrangement of letterheads are given in the copy sent. The portfolios are distributed by the company's merchants to their customers. Copies will be sent to printers requesting them.

WILLIAM R. BAKER

William R. Baker, fifty-six years old, head of the department of graphic arts and professor of industrial education at the Stout Institute, Menomonie, Wisconsin, died at St. Paul, Minnesota, on June 7. A faculty member at Stout since 1933, Mr. Baker was a pioneer in the field of printing and graphic arts education, believing that the subject has a place in all secondary education.

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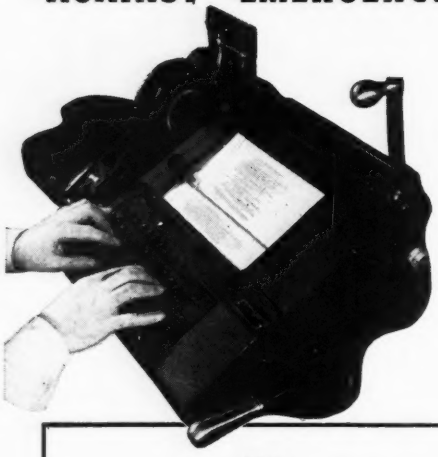

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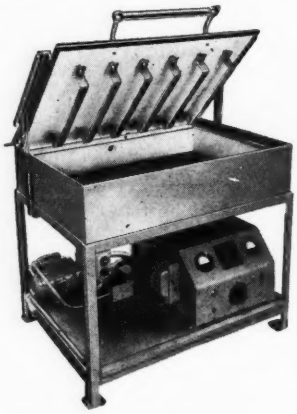

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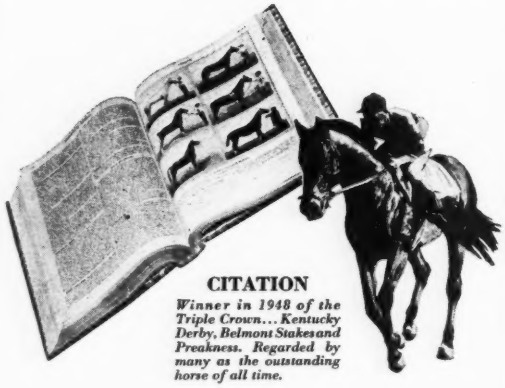

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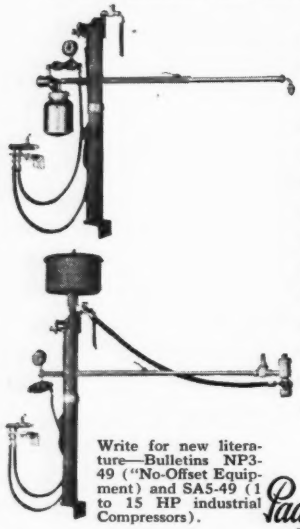

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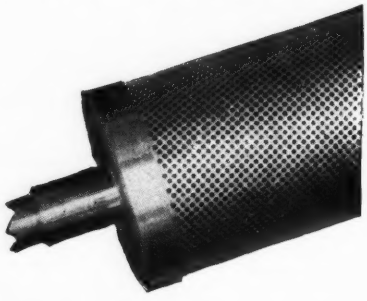

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An Eastern printer, asked to improve the appearance of a package label without changing the label design or colors, called in his paper merchant for assistance. After analyzing the requirements, the paper merchant suggested Trojan White Kromekote*, a stock particularly suitable for the multi-color process work and overprint varnishing used on the labels. Samples were approved and another profitable job went on the presses.

The RIGHT paper merchant, and the RIGHT gummed paper (Trojan, of course!) can help make every sticker and label printing job trouble-free and profitable. Your paper merchant has complete information on Trojan Gummed Printing Papers.

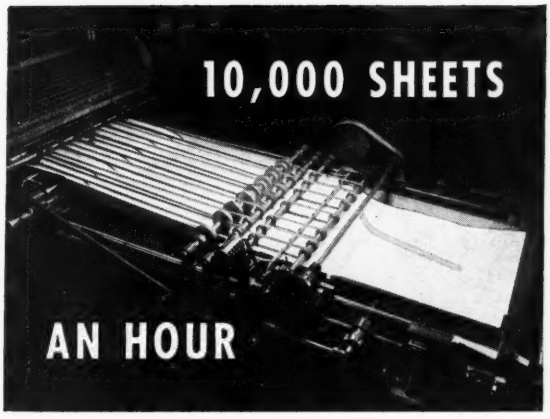
** Kromekote is a registered trade mark of The Champion Paper and Fibre Company's cast coated paper.*

Turn to Trojan Today!

Trojan Gummed PRINTING PAPER ®

THE GUMMED PRODUCTS COMPANY

Offices TROY, OHIO Mills
Atlanta • Cincinnati
Chicago • Cleveland
Detroit • Los Angeles
New York • Philadelphia
St. Louis



Or a perfect web rewind. Hess & Barker's 4 to 6 color letterpress is precision built and delivers fine high quality color work for little money.

Printers from coast to coast are discovering for themselves aggressive competition can be easily matched on price, quality, quantity and handsome profits made with Hess & Banker's Rotary Letterpress that feeds from a roll and delivers sheets or perfect web rewind.

A few of the different plants now using Hess & Barker's 4 to 6 color Rotary Letterpresses are: canned food label printers, paper drinking cup printers, 4 color process magazine covers, comic book publishers, 4 colors one side, 2 colors other side, 6 colors, 2 sides, once through the press, coffee bag printers, flour, seed, feed bag, etc., printers, office form printers and many others all make a handsome profit on their investment in Hess & Barker's 4 to 6 color press.

Telephone or write for a time convenient for you to see Hess & Barker's press in operation . . . Or if you would like additional descriptive folders or booklets write

•

HESS & BARKER

Printing Press and Equipment Manufacturers

212-22 S. Darien St., Philadelphia 7, Pa.

Telephone: PEnnypacker 5-4070

MAKE COLORS *Pop Out!*

You'll Get Better Presswork

"33" *with* Ink Conditioner

(MAKES GOOD INKS BETTER)

When it comes to color work, "33" gives really amazing results. Inks print with fresh sparkle and brilliancy that seem to pop right out from the page. Full ink gloss is retained. Add "33" to your regular inks, according to simple directions. Your customers will be quick to see the difference.

You get improved overall print quality. Halftones stay "clean, sharp and open" "33" prevents picking and tackiness. Added bulk provides 15% to 30% greater coverage—*at practically no extra cost.* Fewer re-runs are necessary. Save pressmen's time and material costs.

See your local dealer or jobber—or write direct—for new folder "TO THE PRESSMAN". Get the facts!

See your local dealer or jobber—or write direct for an 8-lb. trial can. If "33" fails to give complete satisfaction, return the unused portion at our expense.

Contains HYPOTHIOLATE

"33" (Letterpress)

"O-33" (Litho and Multilith)

8-lb. Trial Order

Central COMPOUNDING COMPANY
1718 North Damen Avenue, Chicago 47, Illinois
IN CANADA—it's CANADIAN FINE COLOR CO., LTD., TORONTO
Export Division: Guiterman Co., Inc., 35 South William Street, New York 4, N. Y.

BETTER
FASTER
MORE PROFITABLE PRINTING
5 COLORS PRINTED DRY 5 SECONDS
NO MAKEREADY
NO PRESS WASHUP

Send your production samples, let Champlain show you how to do the job — *better, faster, more profitably.*

Depend On The Leader
CHAMPLAIN CO., INC.
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CHICAGO OFFICE: 7 W. Madison St., Chicago 2, Ill.
Rotogravure at its best
S188

ENGDAHL BINDERY

Edition Book Binders

"Books Bound by Us Are Bound to Satisfy"

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Chicago, Illinois
Telephone MONROE 6-6062

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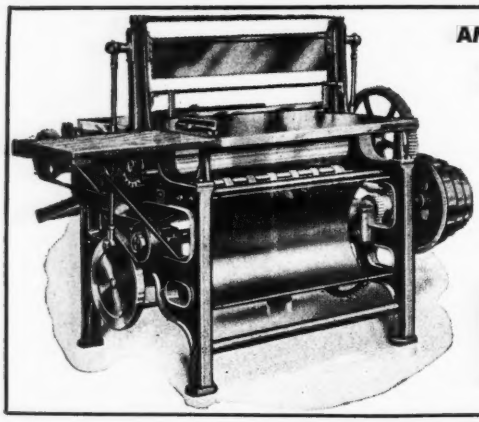
PRINTING PLATE MATERIALS AND CUTTING TOOLS
Write for Samples and name of your nearest Ti-Pi Dealer and rubber Engraver....
Ti-Pi Company

1000 BROADWAY KANSAS CITY 6, MO.



AMAZING POWER-50 SHEETS OR LESS FOLDED AT ONE TIME

McAdams section folding machine is a new, fast model that makes one fold in a single sheet up to 50 sheets at one time.

McADAMS POWER PAPER FOLDING MACHINE
"The One Fold Model"

Folds composition, steno, memo books or diaries that need to be folded by the section or one fold method. Speed is 40 to 120 sections per minute. Operates by remote, variable control. Equipped with single 36" folding blade. Other sizes made to order. Large delivery box. Write for illustrated Bulletin I-500.

NEW!

JOHN McADAMS & SONS, Inc.
Albert Broadmeyer, President
20-22 KNIGHT STREET • NORWALK, CONN., U.S.A.
ESTABLISHED 1842

"Folds Composition Books at High Speed"

NOW—PROMENADE ALL

FOR *IDEAS* IN

Stock Cuts and Stock Photos

All Printers, Editors, and Advertising men, find Cutalog 76 from Cobb Shinn the "How To" illustrate their Printed message.

Request Cutalog 76 today.

This 64 page size 9 x 12 plastic bound booklet offers you art (line and halftone) in a variety of ideas easy to use and economical.

CUTALOG 76 is FREE. Write now.

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10-W BELTS

For The MIEHLE VERTICAL

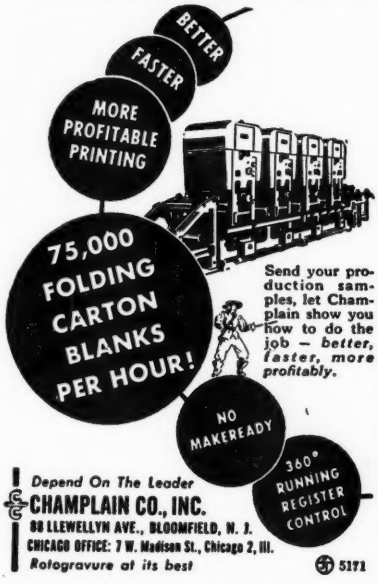
$10.40

POSTPAID AND GUARANTEED

Jack Beall Vertical Service

641 S. Dearborn Street

Chicago 5, Ill.



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We're out after New Business-Records This Year!

BETTER RECORDS?

Rising is Right! Here's Why—

Rising No. 1 Index won't dog-ear or split under the punishment of time and constant usage. It takes an excellent impression. It's easy to handle. Your printer will advise that the index to buy is undoubtedly—

Rising No. 1 Index

✓ 100% rag
✓ White and four colors
✓ 5 weights
✓ 2 sizes

WHEN YOU WANT TO KNOW . . . GO TO AN EXPERT!

Rising Papers

Rising Papers

ASK YOUR PRINTER . . . HE KNOWS PAPER!

Rising Paper Company, Housatonic, Mass.

The above advertisement appears in a long list of executive advertising and sales promotion magazines.

Our "Better Records" ad is setting a fast pace for you this year. By keeping right on its heels—following up on the interest it is creating for you in your own community—you'll make record sales in 1949.

So get on your mark *(the Rising mark)* . . . get set . . . and GO with Rising advertising!

Rising Papers

Rising Papers

PRINTING AND TECHNICAL

WOES of LENNY LINECASTER
HEY! WORKING SATURDAYS NOW?
YEAH! CAN'T PRODUCE ENOUGH DURING THE WEEK... YOUR SHOP GOING OUT OF BUSINESS?
NOPE! SINCE INSTALLING MONOMELT'S ON OUR MACHINES WE GET TOP PRODUCTION... WE FINISH BEFORE SATURDAY!
SOUNDS GOOD! SEND MIKE MONOMELT OVER!
NEXT SATURDAY
YEP... ANYONE CAN PUT THEM IN AND SERVICE THEM WITH THE EXPLODED VIEW MANUAL!
DID MIKE HELP YOU INSTALL THOSE MONOMELTS?

LENNY SAYS:

Why melt your metal twice to use it once? Install MONOMELT single-melting feeders and say goodbye to fuel bills, metal squirts, faulty slugs and other troubles. Available for linecasting machines, Monotypes, Ludlows and Elrods.

WRITE TODAY
for complete information

THE
MONOMELT CO., Inc.
1612 POLK STREET N. E. MINNEAPOLIS 13, MINNESOTA

Send your production samples, let Champlain show you how to do the job — *better, faster, more profitably.*

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SYNTRON
"Vibrating"
PAPER JOGGERS

3600 vibrations per minute jog paper 3 to 4 times as fast as by hand.

Available in a variety of styles and sizes to fit your work and shop layout.

Write for folder

SYNTRON CO.
575 Lexington, Homer City, Pa.

A complete service, including design, finished art, letterpress and offset plates, in one or multi-color. Camera composed color process negatives, positives, offset press plates or photo-engravings for the printer or lithographer.
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TOLEDO · NEW YORK · CHICAGO · DETROIT
GRAPHIC ARTS CORPORATION OF OHIO
MAIN OFFICE AND PLANT · 110 OTTAWA ST. · TOLEDO 4, OHIO · GARFIELD 3781

PAPER · FITCHBURG COMPANY · FITCHBURG, MASS.

Preferred for its Performance
HILLCREST OFFSET
Write to the mill for samples
Fitchburg Paper Company
FITCHBURG, MASS. 250 Park Ave., N. Y. 17 11 So. LaSalle St., Chicago

Insist on Megill's Gauge Pins For Use on All Job Presses

MEGILL'S Patent Spring Tongue ® GAUGE PINS

REMEMBER. Only Megill makes "Spring Tongue" Gauge Pins. $1.80 doz. with extra Tongue.

MEGILL'S Patent Original Steel ® GAUGE PINS

Head 12, 15 or 18 pt. high. 75c doz.

THE PIONEER IN 1870

THE EDWARD L. MEGILL CO.

763 ATLANTIC AVE., BROOKLYN 17, N. Y.

EVEN *Beginners* CAN CAST COPY NOW...*with the*

HABERULE

Visual COPY-CASTER

Amateur or expert, your copy-fitting problems can be solved easily and quickly. Because now you can work with the easiest, fastest copy-fitter ever known, the Haberule Visual Copy-Caster! More than 36,000 artists, printers, ad men, editors, copy writers, students, etc., have acclaimed the amazing simplicity with which it works out any copy-fitting problem. Get yours today!

763 machine and foundry type faces; pocket size; plastic bound. Complete with Haberule plastic type gauge $6

At Artists' Materials Stores...or

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11 east 42nd street • new york 17, n.y.

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CHAMPLAIN CO., INC.

88 LLEWELLYN AVE., BLOOMFIELD, N. J.

CHICAGO OFFICE: 7 W. Madison St., Chicago 2, Ill.

Rotogravure at its best

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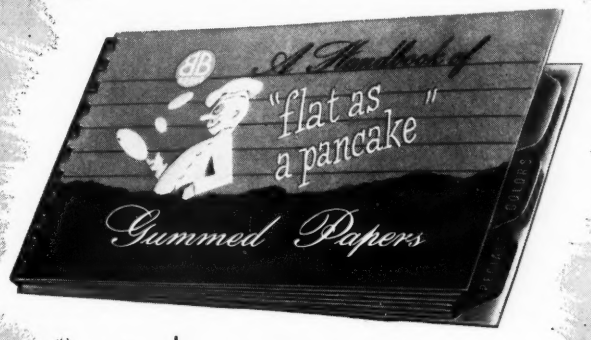
Ask for Your Copy!



free

to users of gummed papers. Just ask your "Flat-as-a-pancake" distributor or write direct to . . .

Tells You, at a Glance, What to Specify...

kind of gumming

Shows you how to select Strong, Dextrine, Met-L-Stik, Stick-to Tenite, or Special gumming for best results according to intended use on surfaces or product. Helps you eliminate waste.

kind of paper

Full range of samples showing whites and colors in English Finish, Supercalendered, Coated and Special papers are indexed for quick and easy reference. Helps you get more business.

Those Gumming Specialists

The Brown-Bridge Mills, Inc., Troy, Ohio

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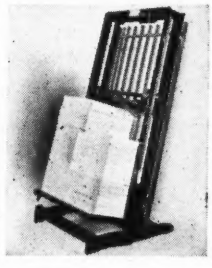
SAN FRANCISCO 1 Drumm Street	**CHICAGO** 608 South Dearborn	**PHILADELPHIA** 2203 Packard Bldg.

CUT PADDING COSTS

TIME SAVER! SPACE SAVER!

IMPROVED PLATELOCK PADDING PRESSES

ILLUSTRATED PRESS, FI-X, BENCH TYPE



WRITE FOR FOLDER

JOSEPH E. MURPHY COMPANY
24 ELLSWORTH ST. WORCESTER 3, MASS.

SAVE TIME, REDUCE COSTS, GET BETTER PRINTING WITH M&W IRON FURNITURE

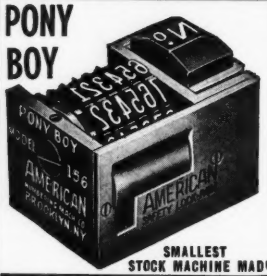
Modern efficiency methods require the use of the fewest possible pieces of accurate iron furniture in each form. Choose fonts or sorts from the M & W stock list of some 200 sizes, so that you may save labor and time in each lock-up. Font schemes and price lists of furniture and other composing room products are yours for the asking.

Morgans & Wilcox
MANUFACTURING COMPANY
MIDDLETOWN, N. Y.
Printers Supplies Since 1878
Dealers in Principal Cities

AMERICAN NUMBERING·MACHINES

FOR ALL NUMBERING REQUIREMENTS

PONY BOY

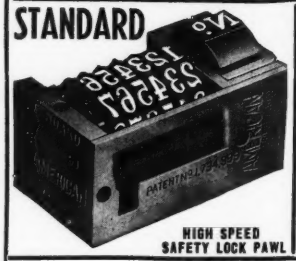


SMALLEST STOCK MACHINE MADE

BLUE BOY

ALL STEEL "BLUED LIKE A GUN"

STANDARD



HIGH SPEED SAFETY LOCK PAWL

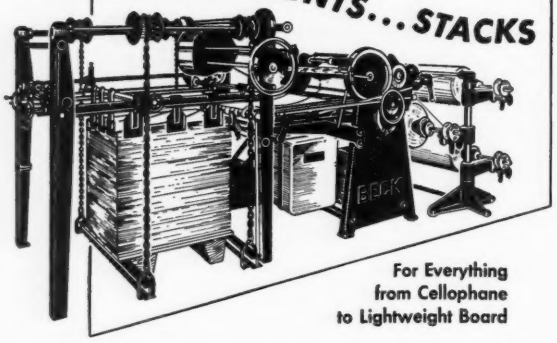
BIG BOY

ANY SPEED ANY PRESS

AT ALL DEALERS

AMERICAN NUMBERING MACHINE CO.
ATLANTIC AND SHEPHERD AVES., BROOKLYN 8, N. Y.
BRANCH — 105 WEST MADISON STREET, CHICAGO 2, ILL.

CUTS... COUNTS... STACKS



For Everything from Cellophane to Lightweight Board

BECK *Automatic* ROLL SHEET CUTTER

Stops waste with electric eye that maintains accurate register control. Stacks neatly with sheet piler and automatic lowering table. Your printing and lithograph stocks are cut faster, counted and stacked with greater ease by a Beck Sheet Cutter. Write for details on Beck's top production, lower costs.

CHARLES BECK MACHINE CORPORATION
412 N. 13th Street, Philadelphia 8, Pa.

New Horizons

Growing apace in the Industry is a new demand on the Composing Room

PROOFS FOR REPRODUCTION

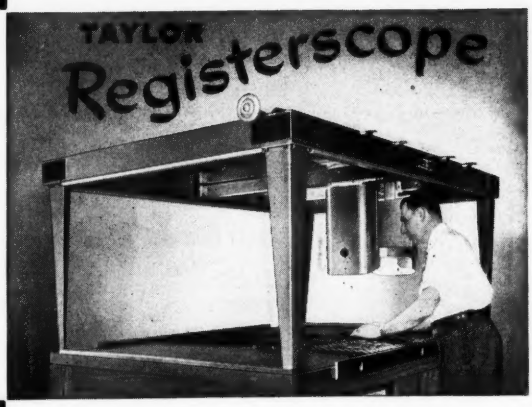
This additional demand, plus a backlog of regular work, is apt to delay scheduled production.

Here is where we help.

Our service on reproduction proofs will supply you with new type, set as specified, plus clear, clean proofs for your customers. And in addition you have no metal to buy or type to store.

BALTIMORE 15 S. FREDERICK ST.
BALTIMORE-2, MARYLAND **TYPE**

Don't Waste Costly Press Time... Register forms BEFOREHAND with the



The Taylor Registerscope, by using optical principles, allows forms to be made up and registered to a high degree of accuracy on the imposing surface, instead of on press. You save costly press standing time and your press run starts sooner.

Easily installed on conventional metal imposing surfaces, the Taylor Registerscope is simple to operate, requires no special training on the part of the operator, and takes no extra floor space. Leading printing establishments throughout the country testify to its effectiveness in saving time and money. For detailed information and prices, write today to:

TAYLOR MACHINE COMPANY
Room 302, 210 Guilford Avenue, Baltimore 2, Md.

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30 and 36 Point Now Available!

30 and 36 point Brush now available for immediate delivery for the first time at this low price. Sizes from 14 pt. to 48 pt. are in process and will soon be in stock.

30 pt. CAPS, 5A $4.40 . . . l. c., 12a $5.00 . . . Complete $9.40
36 pt. CAPS, 4A $5.60 . . . l. c., 10a $5.00 . . . Complete $10.60

Write for Our New Specimen Price Book

PRECISION CAST TYPE **L. A. Type**

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RICHARDS' ELECTROMATIC

DOES EVERYTHING!

- 3 Motors
- Many Exclusive Patented Features

A MACHINE DELUXE

SAWS, TRIMS, ROUTS, PLANES, MORTISES, ETC.

Precisioned Plates Save Press Time

WRITE FOR DETAILS AND FOR COMPLETE CATALOGUE OF OUR LINE

J. A. RICHARDS CO. KALAMAZOO, MICH. 13 F

NEW ROGERS type B-20 PAPER KNIFE GRINDER

Keeps Your Paper Knives Always on the Job . .

SHARP AND TRUE CUTTING

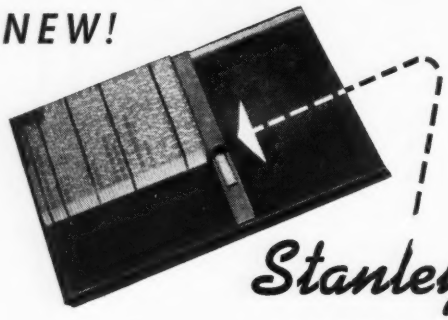
- ***REVERSING MOTOR DRIVE***
- ***QUICK KNIFE SET UP***
- ***PRESETTING ELIMINATES OVER-GRINDING***
- ***RUGGED CONSTRUCTION***

Automatically grinds any straight knife to just the right taper, with just the right concave. Five sizes: 66", 78", 90", 102", 110". Write for descriptive literature.

Also Mfgrs. of Circular Saw Sharpeners Since 1887.

SAMUEL C. ROGERS & COMPANY
183 Dutton Ave. Buffalo 11, N. Y.

NEW!



Stanley

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THE GALLEY LOCK THAT *REALLY WORKS!*

Saves a Michigan plant 35 cents per page on production of a monthly 64 page book!

★ Eliminates tie-up of linecast forms
★ Speeds page make-up and proofing
★ Holds securely for handling, shipping
★ Holds fine type on its feet for good proofs
★ Sizes to fit all standard steel galleys

PRINTERS LIKE TO USE IT!

ANY SIZE SAMPLE AVAILABLE

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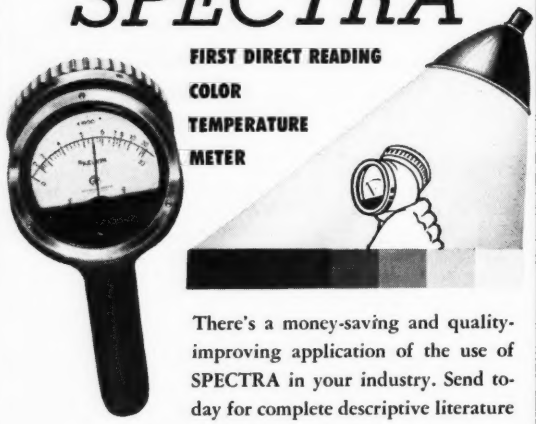
WALTER Y. STANLEY
HASTINGS, MICHIGAN

for COLOR MATCHING ANALYSING CONTROL

The first precise instrument for measuring the quality (color temperature) of the illumination on the subject and making constant light standards possible is the

SPECTRA

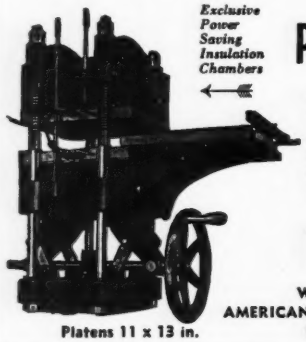


FIRST DIRECT READING
COLOR
TEMPERATURE
METER

There's a money-saving and quality-improving application of the use of SPECTRA in your industry. Send today for complete descriptive literature and prices.

PHOTO RESEARCH CORPORATION
15024 Devonshire Street, San Fernando, California

MAKE YOUR OWN Rubber Printing Plates



Exclusive Power Saving Insulation Chambers

Extreme Precision
Tremendous Power
Maintained Pressure
Power Economy
Connects to 110 V.
Thermostatically Controlled

The Eva-Press

Write for Literature
AMERICAN EVATYPE CORPORATION
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Platens 11 x 13 in.

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and hundreds of other publications are mailed regularly by

CHESHIRE MAILING MACHINES

The Automatic Mailer

- Cuts and attaches addressed labels to any publication automatically.
- New higher speed — saves time and money. Does the work of many hands.

WRITE FOR DESCRIPTIVE FOLDER

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RELIABLE BINDERY EQUIPMENT AT FAIR PRICES

PROMPT DELIVERY ON CAREFULLY REBUILT MACHINES

5—Smyth Book Sewers, No. 3, 4 and 8.
1—National Straight-Needle Book Sewer.
1—Sanborn Book Smasher.
1—Latham Power Punch with punches.
2—Seybold Round Corner Cutters.
1—Murphy Sealing Machine.
1—3H Morrison Book Stitcher ⅝" Capacity.
2—Crawley Rounders and Backers.
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1—No. 2 Smyth Casemaker.
3—Singer Sewing Machines 7-5, 7-11 and 7-15.
3—Latham Stitchers, ⅞", 1¼", 2" capacities.
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3—Hand Roller Backers.
1—No. 4 Boston Stitcher.
1—Cleveland "B" Folder and Feeder.
1—28" Latham Power Perforator.
1—Universal Peerless Slothole Rotary Perforator.
1—20 Pocket Jungst Gathering Machine with Stitcher.

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NEW MACHINERY FOR SALE

Model "A" Champion Book Stitchers, capacity ¼".
No. 26 Champion Stitcher Heads for Automatic Gang Stitchers.
Morrison Book Stitchers—½", ¾", 1½" and 2½" capacities.

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128 No. Clinton St. • STate 2-1670 • Chicago 6, Ill.

COMPLETE LINE OF REBUILT BOOK AND BOX STITCHERS — WE BUY USED PRINTING AND BOOKBINDING EQUIPMENT

BUSINESS OPPORTUNITIES

● **RETIRING OWNER** of established debt-free Chicago specialty printing business offers good will valued at $100,000 to purchaser of equipment, and stock of raw materials and saleable products in plant. Will consider down payment and balance in deferred payments on liberal terms if purchaser can satisfy with best of character, sales and executive ability, and capacity for long hours and hard work. Building may be rented or included in purchase. Box M-1307 in care of the Inland Printer.

● **MONOTYPE COMPOSITION PLANT** For Sale or Lease. Small plant with A1 equipment. Many type faces from 6 to 12 pt. Operator with 25 years experience will lease plant and services on contract. Can place into operation anywhere in very short time. Prefer offset house that wants good Photo-Proofs. Very little financial aid needed. Box J-1324, The Inland Printer, Chicago, Ill.

CALENDAR AND CALENDAR PADS

● **CALENDAR PADS**—67 Styles and Sizes. Write for catalog. Calendar backs for advertising, sheet pictures. Wiebush Calendar Imptg. Co., 80 Franklin St., New York 13, N. Y.

● **WHOLESALE CALENDARS TO PRINTERS. DO YOUR OWN IMPRINTING—FULL LINE. FLEMING CALENDAR CO., 6540 COTTAGE GROVE AVE., Chicago 37.**

FOR SALE

FOR SALE

64 PAGE HOE MAGAZINE PRESS
(16 pages in color)

40 PAGE HOE MAGAZINE PRESS
(20 pages in color)

TWO 32 PAGE HOE MAGAZINE PRESSES
(Black and white)

will produce 10½" x 14½" untrimmed signatures

TWO CHRISTENSEN SADDLE STITCHERS, double heads, equipped with 4 Sheridan 2B Inserter Boxes, size 5" x 8" to 12" x 16".

SHERIDAN STREAMLINE TRIMMER

Details on request

Box J-1326, c/o Inland Printer, 309 W. Jackson Blvd., Chicago 6, Ill.

● **BOOKBINDERS' MACHINERY:** New model National book sewing machines; also rebuilt machines. Write for particulars. Joseph E. Smyth Co., 720 So. Dearborn St., Chicago.

● **2 H. P.** Rebuilt guaranteed variable speed 1800/720 R. P. M. printing press motors. G. E. and Kimble 220 volt single phase. R. B. Weiler, West Chester, Pa.

● **MILWAUKEE BRONZERS**—For all presses. Some rebuilt units. C. B. Henschel Mfg. Co., W. Mineral Street, Milwaukee, Wis.

FOR SALE (continued)

FIRST SEE IF FALCO HAS IT

FALCO REBUILT AND GUARANTEED

SPECIAL-Miller TC 25 x 38
Miehle 6/0TC, Cross Feeder, ED
Miehle 5/0TC, DSPF, ED
Miehle 3/0TC, Cross Feeder, ED
Miehle No. 46 Complete Unit
Miehle No. 41 Complete Unit
Miehle 5/0, DSPF, ED
Miehle 4/0, DSPF, ED
Miehle 2/0, DSPF, ED
Miehle 4/4, Swingback Feeder, ED
Miehle No. 3, DSPF, ED
Miehle No. 1, Cross Feeder, ED
Miehle Horizontals, 22 x 28
Miehle Verticals
Kelly No. 1, Kelly B
14½ x 22" C&P Craftsman
12 x 18" C&P Rice Feeder

THE FALCO CORPORATION
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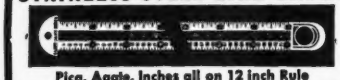

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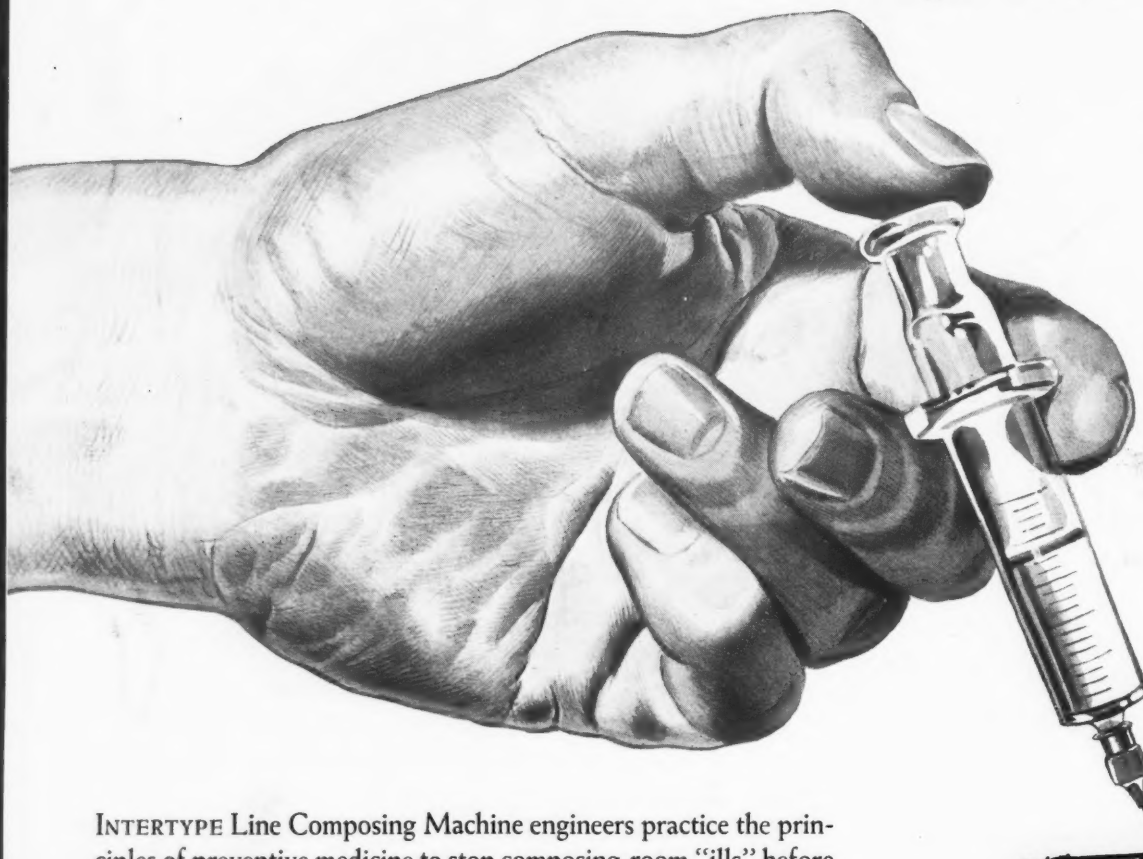

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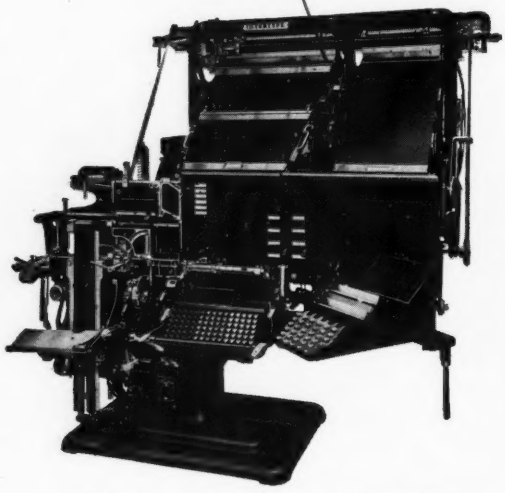

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